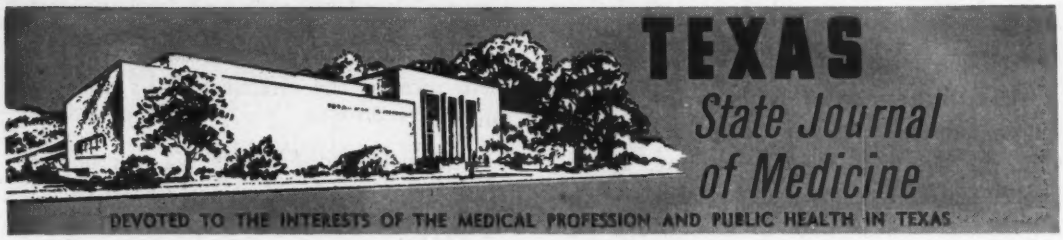

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Indoctrination Program

Although there has been much debate about the merit of a state-level orientation program for new members of the Texas Medical Association and for members who transfer from one county society to another, those who have taken part in the program seem to think it valuable. There will be another opportunity next month to evaluate the program in action.

The second course of indoctrination lectures was given at the headquarters building in Austin in September, when there were 153 registrants—120 of whom attended for credit and 33 as visitors. The replies to a questionnaire sent to the registrants showed that more than 90 per cent thought the lectures were worth while. Many favorable comments and constructive criticisms were made by those who returned the questionnaires. These came from new provisional members as well as older members who were present because they had transferred from one county society to another.

Further experience will show what subjects are the most important to consider, and perhaps it will prove desirable to divide the program so that some topics of special interest to more experienced practitioners will be discussed for transfers simultaneously with other basic topics aimed more specifically at beginning physicians. Certainly every member of the Texas Medical Association should understand the organization, the work and aims of the profession. A young practitioner is bound to be benefited by the orientation lectures. Much information on medical economics, the medicolegal aspects of practice, medical ethics, public relations, workmen's compensation laws, voluntary prepay-

ment health insurance, legislation of medical significance, and other topics has been presented.

The lecture course will be given next in Austin on Saturday, January 18, in conjunction with the Executive Council meeting, a conference of county medical society officials, and a symposium on legislation, all of which will be open to those attending the orientation series. No doubt many will find it more convenient to attend the lectures on Tuesday, April 22, the final day of the 1958 annual session, in Houston.

No one can attend the lectures in Austin and come away without a sense of pride in the profession's beautiful building, its rapidly developing and increasingly useful Library, and the excellent staff that carries on the work of the Association with enthusiasm and efficiency. Likewise, participation in the program during the annual session will provide an opportunity to see the Association in action in its business, social, and scientific aspects such as to bring confidence to the new member and a new realization of what means are his to progress in his chosen profession.

—DAVID W. CARTER, JR., M.D., Dallas.

January Busy Time For Texas Physicians

Every doctor in Texas should find Austin a place of special interest next month. If he is president, president-elect, vice-president, secretary, or delegate of his county medical society; if he is chairman or a member of the legislative committee of his local society; if he is a new or transfer member; or if he is simply a member of a county medical society who is eager to be well informed, he will not want to miss the Conference of County Medical Society Officials and Symposium on Legislation to be presented in conjunction with the Indoctrination Program by the Texas Medical Association January 18 at the headquarters building in Austin. Members of the Woman's Auxiliary also will attend to get information which will help increase the effectiveness of their local units.

Leadership, social security, big government—these are to be covered by noted guest speakers. Kenneth McFarland, Ph.D., educational consultant for General Motors Corporation, Topeka, Kan.; Dr. J. Lafe Ludwig, a member of the Committee on Legislation of the American Medical Association, Los Angeles; and James G. Roberts, manager of the Southwestern Division of the Chamber of Commerce of the United States, Dallas, will have much to offer along these lines.

Members of the Association's official family —officers and committee members—will conduct their business January 18 in preparation for the winter meeting of the Executive Council on Sunday morning, January 19. Any member of the Association is welcome to sit in on the deliberations of the Executive Council, which carries on the Association's business in the fall and winter between meetings of the House of Delegates.

January 7-8 also are important dates for many Texas practitioners. Those physicians whose objective is to improve further the health of the school children of Texas will meet with educators for the second statewide Conference on Physicians and Schools, which is sponsored by the Association's Committee on School-Physician Relationships in cooperation with the Texas Education Agency and the Texas State Department of Health. The conference has been planned to accomplish its purpose through the discussion of means of instituting sound policies and health education in the schools. Fred V. Hein, Ph.D., consultant in health and fitness, Bureau of Health Education, American Medical Association, Chicago, will bring much of interest to those in attendance.

Programs for the Conference of County Medical Society Officials and Symposium on Legis-

lation, Indoctrination Program, and Conference on Physicians and Schools may be found in the Organization Section of this *Journal.*

Advance planning is an important factor for everyone. Mark your calendar now so "you won't be late . . . in '58" for taking advantage of your membership in the Texas Medical Association.

Medical Branch Contributes Symposium

Hats off to the University of Texas Medical Branch for the scientific section of this month's *Journal.* With Dr. Martin Schneider as guest editor for the symposium entitled "Malignant Neoplasms in Children," the six articles in the series represent work in the Departments of Internal Medicine, Neurosurgery, Orthopedic Surgery, Pediatrics, Radiology, and Urology, and the Hematology Research Laboratory of the Medical Branch.

This is the second such symposium offered by the Galveston medical school; the first appeared in the September, 1956, *Journal* and concerned recent developments in neurology and psychiatry. Baylor University College of Medicine, Houston, also has contributed the scientific section for one issue in 1956, and a second symposium is in the process of being completed for use in 1958. Southwestern Medical School, Dallas, has been invited to provide a series of articles for a similar special issue.

Since the three medical schools in Texas provide the centers for scientific advances and research in the state, their manuscripts are a special benefit to *Journal* readers. The *Texas State Journal of Medicine* acknowledges with appreciation the contribution of the original articles in this issue from the University of Texas Medical Branch and particularly wishes to thank Dr. Schneider, who served as coordinator for the series.

Grievance Committees And the By-Laws

It is disappointing that only about 35 per cent of county society secretaries answered the grievance committee questionnaire, the results of which were published in the November issue of this *Journal.* In order to conform to local situations, deviations from the By-Laws of the Texas Medical Association are to be expected; however, the survey indicates that several points need emphasis and clarification in the interest of uniformity and improved function.

Chapter X, Section 18 (a), of the By-Laws requires that "Each component county society shall set up a standing committee to be known as the County Public Grievance Committee" and that "It shall consist of three or more members . . . each with a term of office for three years. . . ." This term of office has been stipulated in order that there will always be at least one experienced member on the committee.

If grievance committees are to serve to improve public relations, then every county society must have a committee, and the public must know of its existence. A lack of complaints does not relieve the county society of this obligation. Publicity must be judicious, or every dissatisfied patient may use the committee as a whipping post for his physician.

This section further states: "This committee shall have the duty of investigating and supervising the ethical deportment of the membership of the component county society for which it serves, shall receive complaints from the general public against members of the society, and shall receive similar complaints and grievances made by members against other members."

When a complaint has been received, the committee should promptly write the complainant that the matter is to be investigated, and the disposition of each case should be reached as quickly as possible. The committee will not assume the authority either to discipline or to release physicians from charges. If

the evidence suggests a breech of medical ethics, the committee is to prosecute charges before the board of censors. For this reason physicians cannot serve on both the committee and the board of censors at the same time.

Such organization may need modification in the very small county societies; and in these counties the Councilor of the district should be consulted for aid and advice in meeting the local problems.

Chapter X, Section 18 (c), states that the committee "shall furnish a written statement in brief of the finding of the committee to both the original complainant and the accused physician." This does not require a lengthy written report, and a brief report is preferable; however, the complainant will be assured that he has had a "fair hearing" only if the committee or one of its members explains the findings orally and in person.

Though the survey indicates that all county societies do not have grievance committees and that certain variations from the By-Laws of the Texas Medical Association exist, one can be encouraged by the progress that has been made during the past 5 years. The public demand upon organized medicine for this service is increasing; and, with the knowledge gained by experience and study, the decisions of these committees will gain more respect and good will for the physicians in the communities which they serve.

—R. M. TENERY, M.D., Waxahachie.

★ Current Editorial Comment

Tribute to William Harvey In 300th Anniversary Year

I am not a person who is wedded to the past; however, June 3, 1957, happens to have been the three hundredth anniversary of the death of William Harvey, the discoverer of the circulation of the blood. The medical profession is so steeped in tradition that it cannot avoid the past. Hippocrates gave the profession the scientific approach, Vesalius anatomy, and William Harvey the physiology of the circulation. The fact that the blood flowed through the blood vessels had been known from antiquity as anyone can see a cut blood vessel bleed, but the fact that the blood flowed in two circles (the lesser or pulmonic circulation and the greater or systemic circulation) remained for William Harvey to discover. His thinking to prove the circulation, although he never demonstrated the arterioles or venules because he did not have a microscope, is undoubtedly the greatest piece of deductive reasoning the world has ever known. Sir Thomas Browne (of "Religio Medici" fame) remarked that he preferred the discovery of "the circulation of the blood to the discovery of America"!

This year during the month of June the Royal College of Surgeons had a William Harvey Tercentenary Celebration in London which was attended by representatives of 56 nations and at which time a complete review of the present knowledge of the circulation of the blood was presented. Also various tributes were paid to this great discoverer by St. Paul's Cathedral, Canterbury Cathedral, Gray's Inn, Royal College of Physicians, Royal Society of Medicine, Medical Society of London, Harveian Society of London, and many others. There was also a gay Elizabethan dinner at Folkestone, the birthplace of Harvey.

The Royal College of Surgeons justified its celebration of the event (though Harvey belonged to the Royal College of Physicians) since Harvey was known to have worn a dagger which the surgeons said made him a chirurgeon! As would be anticipated, the scientific show was "stolen" by the thoracic surgeons with the extracorporeal circulation of the blood and the "bloodless" operations within the heart as demonstrated by Sir Russel Brock.

What did Harvey receive for his discovery? In the words of Aubrey, "I have heard him say that after his booke of the circulation of the blood came out he fell mightily in his practice,

and 'twas believed by the vulgar that he was crack-brained and all the physicians were against him." Harvey's reply is a classic I think should be remembered, "To return evil speaking with evil speaking I hold to be unworthy of a philosopher and a searcher after truth. I believe I shall do better and more advisedly if I meet so many indications of ill breeding with the light of faithful and conclusive observation." At times, however, Harvey would prove he was human and refer to his colleagues with vulgar names.

Harvey knew of the circulation in 1616, for his notes for the Lumleian lectures of that year are still preserved; however, he waited until 1628 to publish his findings in the famous "De Motu Cordis." He then waited until 1649 to publish anything further on the circulation in his answer to Riolan, the great French anatomist. While admitting the distinction of this antagonist, he proceeded on this particular question utterly to demolish him with clear facts and stern irrefutable arguments. He called upon his opponents to observe the facts and make experiments for themselves instead of citing the opinions of authors centuries old. This idea much later has been attributed to John Hunter but really belongs to Harvey.

Historians have tried to credit the discovery of the circulation to Leonardo da Vinci, Andreas Vesalius, Michael Servetus, Realdo Columbus, Andreas Caesalpinus, and even William Shakespeare. Time has proved, however, that only Harvey, and Harvey alone, experimented, reasoned, thought out, and proved this great discovery. It cannot be taken away from him.

Another evidence that Harvey was human was noted by Aubrey in later years after the death of Harvey's wife, "I remember he kept a pretty young wench to wayte on him, which I guesse he made use of for warmeth-sake as King David did"!

Throughout the centuries Harvey's name has been kept brilliant by the many harveian orations which have fathomed out every aspect of the life of this discoverer. The most well known oration was given by none other than Sir William Osler in 1906 and is entitled "The Growth of Truth." This brilliant oration, as no one but Sir William could write, was reprinted June 1, 1957, in the *British Medical Journal*. I recommend it for reading.

Harvey's love of truth was equaled by his love of nature. "Facts recognizable by the senses," he wrote in his second letter to Riolan, "wait upon no opinions—the works of nature bow to no antiquity: for indeed there is nothing either more ancient or of higher authority than Nature."

"A searcher after truth"; there may be more elaborate epitaphs, but there could not be a nobler one for a man who, though so uncommonly successful in his search, remained always modest and dedicated.

—WILLIAM M. CRAWFORD, M.D., Fort Worth.

♦ Dr. Crawford, 612 Sixth Avenue, Fort Worth.

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions should not be more than 500 words in length.*

Season's Greetings

President's Page

Christmas Prayer

For the President's Page for December I have selected an article written by Dean Clarence E. Manion one year ago. He expresses my thoughts very much better than I can express them. I hope all of you read and reread it.

Dear God, on this anniversary of Your birth as Man, we pray to You for strength. We are still convinced that knowledge of You can be retained in our minds, that worship of You can be perpetuated in our churches, that love of You can be preserved in our hearts.

But, we need Your Divine help today, God. We need it as individuals. We need it as a Nation. We need it so that we may be inspired to avert the doom of the human race.

We are not worthy of Your help. Our national history shows many wrongs, many errors, many acts of ill intent. We cannot ask that these be forgotten or condoned.

We can only plead that our national mistakes have never been coupled with the purpose of removing all knowledge of Your Fatherhood, Your justice, Your mercy from the minds of Your creatures. We can only say that our national sins did not arise out of a satanic desire to stamp out the freedom, hopes and lives of other peoples, other nations.

We know, God, You meant man to be free—free within the scope of Your Commandments and the natural law. When the gates of despotism were slammed against human liberty, you must have hovered over formulation of the Justinian Code of Laws. When again the shackles bound wrists of men, You must have presided at Runnymede when Magna Carta was born. Without Your inspiration and help, certainly there would have been no American Declaration of Independence.

During the hot, despairing days of 1789, You assuredly watched over the group in Philadelphia who certified American freedom with the Constitution of the United States.

This generation prays today for Your Divine help in saving that Constitution. Without it our freedom is lost; our natural right to worship You is lost; our lives are lost—and the black ashes of atheism will cover us as it now hides a billion of Your creatures.

We are beset by enemies without, and weaklings within. A philosophy of stark, heartless materialism is poisoning the souls of our children. Your Blessed Name is being made anathema. You cannot be mentioned in the United Nations, crudely dedicated to "peace," which only You can give.

This is the glorious anniversary of the day when Your majesty and compassion divided all of our recorded time in two—the Blessed Day before and after which all our history is and shall ever be dated.

Give us, therefore, this day and for all our days, the fearlessness of Patrick Henry, when he cried: "Give me liberty, or give me death," the courage of Washington in his dreary hours at Valley Forge, the insight and perseverance of Jefferson, Madison and Franklin when our Republic was made.

Give us, dear God, the vigor and zeal of Lincoln and Lee, who fought on opposite sides, but both for the freedom-saving Constitution.

Our time is short. From out of the lowering darkness we can hear the drums of destruction, their tattoo rising, steadily rising.

We work during these disheartening days, sustained only by the hope that Your help will lead us back to the sunlight that once brightened our lives. Amen.

I wish to take this opportunity to express to each member of Texas Medical Association my sincere thanks for his wonderful support and cooperation thus far this year. I wish for each of you, your families, and your patients a Happy Holiday Season. For the families of those who have answered their last call, I wish the comfort and understanding that only the Great Physician can give. May their lives be an inspiration to all of us, and may their passing remind us all that ere long we too must answer that last call. Meanwhile may we redouble our efforts and rededicate ourselves to the task of giving ever improved medical care to the people of this great state. Let us also rededicate ourselves to the ever increasing task of preserving the freedom which we inherited so we may leave our children a more healthful and a better place in which to live.

Denton Kerr

ORIGINAL ARTICLES

Malignant Neoplasms In Children

A Symposium from The University of Texas Medical Branch

Guest Editor:

MARTIN SCHNEIDER, M.D.

Galveston, Texas

The Problem of Malignancy in the Childhood Period

ARILD E. HANSEN, Ph.D., M.D., and ARR NELL BOELSCHE, M.D.

Galveston, Texas

THE SPECTACULAR increase in longevity in our country is known to everyone. Contributing materially to the increase in life span has been the saving of lives of infants. In former years the excessively high death rates in infants were due in large part to diarrheal diseases. Sometime ago the situation in our country was the same as still exists in some parts of the world today, wherein more than half the babies born alive fail to survive the first year of life. The widespread dissemination of knowledge and the application thereof relative to the proper feeding of infants has led to a marked reduction in deaths from this cause. The conquering of many other diseases, likewise, has led to phenomenal decreases in deaths throughout the childhood period. The specific death rates per 1,000 population in 1950 for diphtheria, for example, were less than one-hundredth that of 1900 according to Vital Statistics of the United States.[4] For tuberculosis the rate has decreased to about one-tenth during the comparable period. The decline in crude death rates for the entire United States per 10,000 population from 1900 to 1954 is illustrated in figure 1. Also shown are similar data for Texas from 1935 to 1954. The crude death rates in the childhood age groups for the United States are given in figure 2. The significance of saving the life of an infant or child and the consequent effect on the longevity of a population are realized only when one considers the saving in the term of "life-years." For example, it does not take much imagination to realize that the life-years of two persons dying at the age of 70 years is twice greater than if one died during the first year of life and the other at 70 years. With the decreasing death rates in infants and children, a paradoxical situation exists concerning the category of disease "cancer and other malignant tumors" in which the death rates are increasing. This fact forcibly brings out the necessity of paying particular attention to the problem of malignancy during the childhood period.

The increasing incidence of malignancy in our country is apparent in figure 1 in which are charted the death rates from malignant tumors for the years 1900 to 1954. Similar data are presented in figure 3 for the various childhood age groups: under 1 year, 1 through 4 years, and 5 through 14 years. Attempts were made to obtain the death rates in these childhood age groups for Texas, but the data are sparse.

Dr. Arild E. Hansen and his co-author are from the Department of Pediatrics of the University of Texas Medical Branch, Dr. Hansen being chairman.

The death rates for children today are only a small fraction compared to those of the early part of the century. In marked contrast, the death rates in infants and children due to cancer and other malignant tumors have increased. The cancer problem cannot be ignored; its awareness by the medical profession is mandatory as early recognition and adequate treatment may result in saving many life-years.

In fact, the exact increase in the incidence of malignancies is impossible to obtain from the vital statistics records because of the change in classification which occurred in 1948. Neoplastic diseases now include the leukemias, whereas previously they were

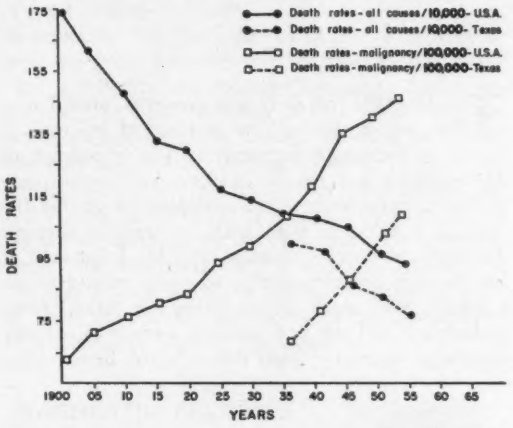
Death rates - all causes / 10,000 - U.S.A.
Death rates - all causes / 10,000 - Texas
Death rates - malignancy / 100,000 - U.S.A.
Death rates - malignancy / 100,000 - Texas
DEATH RATES
YEARS

Fig. 1. Death rates from all causes and from malignancy in the United States and in Texas for all ages.

grouped separately. In part, this accounts for the sudden rise in the slope of the curve between the years 1940 and 1950 (fig. 1 and 3). Silverman[3] in 1954 at a conference of cancer pathology and radiology in Houston stated that in 1930, out of every 50 deaths between the age of 1 and 14 years, 1 was caused by cancer, whereas in 1954 it was 1 out of 9. In part this has been because of improved diagnostic methods and facilities, as well as the reduced infant mortality. Nevertheless, aside from these factors, there is still

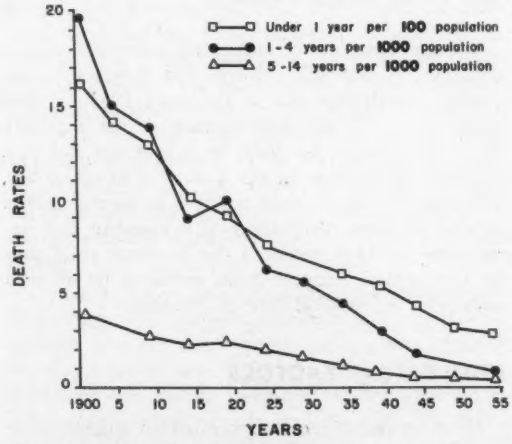

Fig. 2. Crude death rates in the United States for the childhood age groups.

an increased incidence of malignancy as a cause of death in childhood.

It is of some interest that the highest rates of malignancy are in the northern states and the lowest in the southern states. In 1950 there were 69.4 deaths from malignancy per 100,000 population in New Mexico and 179.6 per 100,000 in Massachusetts. Texas during this same year was among the lower group, but had the considerable number of 104.8 per 100,000 population. Considering the total number rather than the rate, in Texas there was a 50 per cent increase in deaths from malignancies from 1945 to 1954.

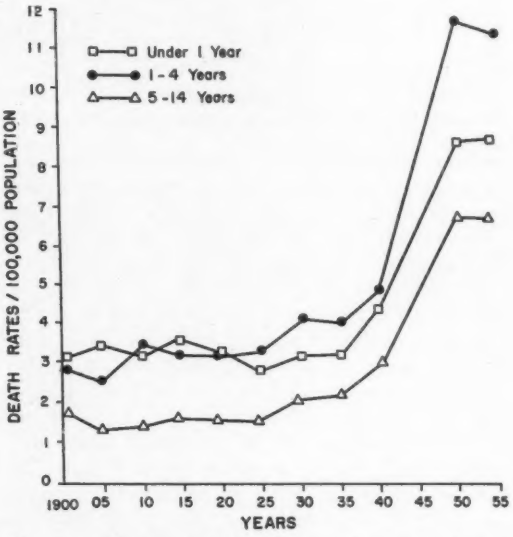

Fig. 3. Death rates from cancer and other malignant tumors in the United States for the childhood period.

Although the fact is not generally appreciated, the age group of 1 to 4 years is a relatively hazardous period for malignancy. This is due to the ocurrence of tumors of embryonic origin such as embryomas of the kidney, neuroblastomas of the adrenal cortex, retinoblastomas, and teratomas. Tumors of the hematopoietic system and of the central nervous system tend to occur with greater frequency in the 4 through 14 year age group.

Anyone familiar with diseases of children in a place such as the University of Texas Hospitals is impressed with the growing significance of the problem of malignancy among children. Sometimes, these patients present typical histories and physical findings, but often the manifestations are so obscure as to cause difficulty in diagnosis. Between 1950 and 1955 more than 250 admissions to the Children's Hospital of the University of Texas were for malignancy of various types.

Tumors may occur in all parts of the body in children, but the commonly involved organ systems dif-

fer from those of adults. The most frequent site of malignant tumors in children quoted from medical center to medical center depends upon the reputation of that clinic. Handy and Goldberg[2] in a series of 599 children during a 3 year period reported the most frequent malignancy to be leukemia; Dargeon[1] found the skeletal system most often involved. At the University of Texas Hospitals central nervous system tumors and leukemias lead the list. In table 1 are summarized the most frequent sites as observed

TABLE 1.—*Relative Frequency of Sites of Malignancy in Children.*

Dargeon[1]	Handy & Goldberg[2]	University of Texas
Skeletal	Hematopoietic	CNS
Kidney & adrenal	CNS	Hematopoietic
Eye & orbit	Kidney & adrenal	Skeletal
Hematopoietic	Lymphosarcomas	Kidney & adrenal

by these various workers. Commonly found are malignancies of the blood forming organs, brain, kidneys and adrenal area, and the skeletal system. However, one must be ever alert to the eye and soft tissues as possible locations for malignant growths.

By no means should an attitude of defeatism prevail when the problem of malignant tumors in children is considered. Longevity and survivalship is increasing for many forms of childhood malignancy with our present method for early diagnosis together with the advances in treatment. Hence, malignancy should be considered in the differential diagnosis of every patient in order to identify the early cases. The error of interpreting a benign lesion as a malignant one may be serious and cause unnecessary heartache and radical treatment. When the least suspicion is aroused, maximum effort should be made to obtain the exact diagnosis promptly in order to alleviate the anxieties of the parents.

For any physician who is responsible for the care of children, it is axiomatic that the possibility of malignancy be kept in mind continuously. A child of 2 years with a malignant tumor diagnosed early and successfully treated may well have a life expectancy of 64 years. The 64 year old adult, again with early diagnosis and successful treatment, may be expected to reach 72 years of age. In other words in the terms of "life-years," there may be an eight fold difference. This point is stressed because greater emphasis should be placed on malignancy as a problem of childhood.

REFERENCES

1. Dargeon, H. W.: Cancer in Children from Birth to 14 Years of Age, J.A.M.A. 136:459-468 (Feb. 14) 1948.
2. Handy, V. H., and Goldberg, I. D.: Occurrence of Malignancies in Children, N. York State J. M. 56:258-260 (Jan. 15) 1956.
3. Tumors of Infants and Children, Cancer Bull. Texas, 6:92-95 (July-Aug.) 1954.
4. Vital Statistics of the United States.

Dr. Hansen and Dr. Boelsche, Department of Pediatrics, University of Texas Medical Branch, Galveston.

Leukemia In Childhood

MARY ELLEN HAGGARD, M.D., and W. C. LEVIN, M.D.

Galveston, Texas

TO THE PHYSICIAN who concerns himself with the care of children the problem of leukemia is assuming increasing importance. The prevalence of this disorder and the development of specific antileukemic drugs leads to the consideration of this disease in a different light than in previous decades. Leukemia, the most common type of malignancy in childhood,[12] actually appears to be increasing in incidence. How much of the increase in deaths from leukemia is real and how much is a result of reduced childhood mortality from infection, of better diag-

Dr. Mary Ellen Haggard and her co-author are from the Departments of Pediatrics and Internal Medicine, respectively, and the Hematology Research Laboratory, University of Texas Medical Branch.

The problem of leukemia is assuming increasing importance in the care of children, in whom the condition appears to be increasing in incidence. Leukemia is the most common type of malignancy in childhood. Although only temporary prolongation of life with blood transfusion, antibiotics, and antileukemic therapy can be offered now, it is reasonable to hope for an agent that will eradicate the disease.

nostic methods, and of increasing awareness of this disorder is debatable. Sachs and Seeman[16] have shown, nonetheless, that in the years 1931 to 1940 there was a 75 per cent increase in the mortality from leukemia in the birth to 1 year age group, a 55 per cent increase in the 1 to 4 year age group, and a 46 per cent increase in the 5 to 14 year group. In view of these observations it is apparent that unwelcome as the problem of the leukemic child may be, this critical situation must be faced by all who undertake the medical care of children.

ETIOLOGICAL FACTORS

Much evidence has accumulated to suggest etiological factors for this disorder, but the cause of leukemia remains unknown. The hereditary aspect

of this condition is emphasized by reports of its occurrence in each of several sets of twins[2, 6] and in as many as 5 of 8 siblings.[1] At least 25 cases of congenital leukemia have been reported, many of them with other congenital defects, such as mongolism and cardiac anomalies.[4, 13, 14, 15] In mouse and fowl leukemia there is much evidence to support the concept of viral etiology,[10, 17] and it is tempting in childhood leukemia to link the early symptoms of the disease with the rather common history of antecedent infection. Etiological relationships, however, remain unproven. The high incidence of leukemia among the atomic bomb survivors, among children who have had radiation to their thymus glands in infancy, and among radiologists has resulted in much speculation concerning irradiation as a leukemogenic agent. Again, however, with the data presently available, proof that irradiation is the cause of leukemia is lacking. It is possible, of course, that one or more of these factors may contribute to the development of leukemia in a given individual.

DIAGNOSTIC FEATURES

Even with early diagnosis and modern drug therapy, leukemia remains a fatal disease. Greatest palliation is achieved if treatment is begun early so that it may have adequate time to produce beneficial effects. "Early diagnosis" is possible only if one is keenly aware of the possibility of the disorder. The child with pallor, petechiae, ecchymoses, fever, lymphadenopathy, and hepatosplenomegaly, immediately suggests the possibility of leukemia. His clinical findings reflect the underlying pathological process —infiltration and replacement of normal tissues in the reticuloendothelial system and bone marrow by leukemic cells. Thus, with a decrease in erythrocyte precursors in the marrow, and usually with decreased survival of circulating erythrocytes, anemia develops. This in turn is responsible for symptoms of pallor, easy fatigability, and exertional dyspnea. The decrease in megakaryocytes in the bone marrow leads to platelet deficiency and consequently a hemorrhagic tendency. The absence of normal leukocytes results in a lowering of body defenses against infection. Hence, ulcerations of the mucous membranes, cellulitis, and septicemia may become a part of the clinical picture.

Often, however, most of all of these features may be lacking. The symptomatology may be quite nonspecific, and one can neither exclude nor establish the diagnosis on clinical grounds alone. Early in the course of the disease leukemic infiltration may involve predominantly bones and synovial membranes with the resulting clinical picture most suggestive of rheumatic fever or of rheumatoid arthritis. We have observed 2 children treated for periods of 8 and 12 months with steroid hormones for a "rheumatoid arthritis" who later demonstrated clinical and hematological signs of unequivocal leukemia. More rarely, a child with leukemia first may present a clinical picture simulating meningitis.

Only on the basis of unequivocal laboratory evidence can the diagnosis of leukemia be made. Usually abnormalities consisting of leukemic cells, thrombocytopenia, and anemia are apparent in the peripheral blood. Often, however, certain features of the peripheral blood together with clinical manifestations may lead to confusion with other conditions. Acute lymphocytosis, infectious mononucleosis, and pertussis each may produce marked lymphocytosis. The morphological characteristics of the Downey type lymphocyte and a positive heterophil test will help to differentiate infectious mononucleosis. In acute lymphocytosis and pertussis the lymphocytes are morphologically normal in contrast to the leukemic lymphocyte.

The total leukocyte value in acute leukemia of childhood is frequently normal or decreased. In such a situation it may become difficult to distinguish leukemia from acute thrombocytopenic purpura, from a lymphoma, or from reticuloendotheliosis. The anemia, leukopenia, and thrombocytopenia often will suggest a diagnosis of aplastic anemia. This diagnosis also may be considered if aspiration of the marrow is difficult and unproductive of marrow particles. Diagnostic confirmation of leukemia is dependent upon adequate bone marrow examination by a competent hematologist. Replacement of normal marrow elements by the very immature blast forms of leukemia establishes the diagnosis. On the basis of the cell type involved a cytological classification of leukemia may be made. Of the 117 cases of childhood leukemia observed at the University of Texas Medical Branch since 1940 (table 1) approximately 95 per cent are acute. Lymphocytic leukemia is the most common variety comprising 75.7 per cent of this series, while myelocytic leukemia is responsible for 15.4 per cent of the cases and monocytic leukemia for 3.6 per cent. This is in general agreement with previous observations of Cooke,[3] Tivey,[18] and Pierce.[16]

TABLE 1.—*Childhood Leukemia, University of Texas Medical Branch, 1940-1957.*

Type	No. Cases
Lymphocytic	84
Acute	83
Subacute	1
Monocytic	4
Acute	4
Myelocytic	18
Acute	12
Chronic	6
Undifferentiated	1
Total	107

TREATMENT

Having established the diagnosis of leukemia, the physician has the responsibility of discussing both the nature and the ultimate prognosis of the disease with the child's parents. As with any fatal disease it is impossible to be optimistic. Nonetheless, recent advances in therapy have removed the making of the diagnosis of leukemia from the realm of a mere academic exercise. One may be encouraged by the fact that there are now available antileukemic drugs which when used judiciously enable many children to enjoy periods of complete comfort for intervals of months or even years. Furthermore, it is reasonable to speculate that additional more effective agents for the control of this disease may be forthcoming in the foreseeable future.

The management of the child with leukemia includes the judicious use of blood transfusion to maintain a satisfactory hemoglobin level, antimicrobial therapy to prevent and combat the ever threatening complication of infection, and appropriate antileukemic agents to induce and maintain hematologic and clinical remissions. A no less important facet of treatment is the psychological support which the physician must give to the patient and his family during an inevitably fatal illness which with drug therapy may follow a lengthy course.

Since the introduction of potassium aresenite by Fowler in 1860 for this purpose, many drugs have been used in the treatment of leukemia. In the following discussion, however, only the more commonly used and effective agents will be mentioned (tables 2 and 3).

Chronic leukemia in childhood accounts for only about 5 per cent of our cases. To our knowledge, all reported cases have been of the granulocytic type. In older children the disease follows much the same course as in adults. In infants, however, chronic myelocytic leukemia is of shorter duration and commonly exhibits thrombocytopenia, rather than the more characteristic thrombocythemia seen in adult granulocytic leukemia.[11] In figure 1 is depicted a typical case of granulocytic leukemia. During the course of her illness, this patient received the three most commonly employed forms of therapy, that is, radioactive phosphorus, roentgen-ray therapy to the spleen, and Myleran (table 2). The total duration

TABLE 2.—*Therapeutic Agents Used in Chronic Granulocytic Leukemia.*

Agent	Initial Dose	Maintenance Dose	Current Status
Myleran (1:4-dimethane-sulfonoxybutane) 2 mg. scored tablets, Burroughs Wellcome	0.6 mg./kg./day[19] (6-8 mg.) P. O.	2 mg./wk. to 4 mg./day	Remission in 2-8 wk. May be given P. O. Few side effects, economical.
Irradiation P_{32}[7]	*0.1 millicurie/kg. in fractionated doses I. V.	. . . .	As effective as Myleran. Should be given I. V. Few side effects.
X-ray locally to spleen	*100-200 r in air in divided doses	. . . .	Expensive, but equally effective.
Purinethol (6-mercaptopurine) 50 mg. scored tablets, Burroughs Wellcome	2.5-5 mg./kg./day	2.5 mg./kg./day	Not as effective as Myleran. Has had little use.[21, 20]

*The smallest possible dose which will produce a remission should be used.

TABLE 3.—*Therapeutic Agents for Acute Leukemia.*

Agent	Initial Dose	Maintenance Dose	Current Status
Hormones			
Prednisone	15-100 mg. daily P. O.	Short intervals of therapy desirable	Remission in 1-3 wk. in about 60% of cases. Especially valuable in the critically ill who have bleeding and high fever.
ACTH	60-100 units I. M. daily	Short intervals of therapy desirable	Similar to prednisone, perhaps slightly more effective.
Antimetabolites			
Purinethol	(see table 2)	Optional, probably preferable	Remission in 3-8 wk. in 30-65% of cases. Remission said to be of longer duration than with hormonal therapy.
Methotrexate (4 Amino-N^{10}-methyl-pteroyl-glutamic acid) Amethopterin, Lederle, 2.5 mg. tablets	1.25-5 mg. daily P. O.	Optional, probably preferable 1.25-5 mg. daily, or at longer intervals	Remission in 3-8 wk. in 30-68% of cases and said to be of longer duration than with hormonal therapy.

of her illness was 32 months, slightly more than the average period of survival reported by Turesson.[19] It may be noted that although a satisfactory remission of several months was achieved with Myleran, the level of thrombocytes ultimately returned to a level greater than 1,000,000 per cubic millimeter of blood. It was because of symptoms referable to the high platelet count that the second course of radioactive phosphorus was given. An apparent hematological remission was achieved, but the patient died at home a few weeks later. Details of her death are not known.

The acute leukemias of childhood, in addition to being the more common, differ from the chronic disease in that untreated they follow a much shorter course and in that morphologically abnormal blast forms almost completely replace normal cellular elements of the bone marrow. Hence, according to cytological characteristics, a child may have acute lymphocytic, acute myelocytic, or acute monocytic leukemia. Occasionally, the cell type may be so anaplastic as to defy more specific identification than "stem cell" leukemia.

Although spontaneous remissions in acute cases have been reported, the median survival of untreated cases is usually given as 2 to 4 months.[18] Between 1940 and 1950 some 28 children with acute leukemia were followed throughout the course of their illness at the University of Texas Medical Branch. They received no specific antileukemic therapy. The average duration of illness was 13 weeks. This is in contrast to the 25 children with acute leukemia the course of whose illness has been followed since 1953 when all three of the major antileukemic agents (table 3) became available. This group of children has an average survival time of 41 weeks, with a range of 3 weeks to 2½ years. In a similar group, Burchenal[3] has reported a median survival time of 12 months and Pierce[15] an average duration of 43 weeks. It readily becomes apparent that although every child with acute leukemia will not respond to therapy, many children will experience remissions when given specific antileukemic agents (table 3) and hence will enjoy definite prolongation of life expectancy.

The use of any therapeutic agent depends upon the type of leukemia and the experience of the physician, as well as upon frequent periodic hematological and clinical evaluation of the child. Today a battery of drugs are available which include in addition to the more effective ones listed in tables 2 and 3, other alkylating agents such as p-carboxyl propylphenylbis (beta chloroethyl) amine (Leukeran, CB 1348), triethylenemelamine (TEM), triethylenethiophosphoramine (thioTEPA), and other folic acid antagonists, such as aminopterin. At the University of Texas Medical Branch, greatest success thus far has been achieved with those listed in tables 2 and 3.

Acute leukemia of childhood, particularly the more common lymphocytic variety, appears to respond best to steroid hormones, 6-mercatopurine, and folic acid

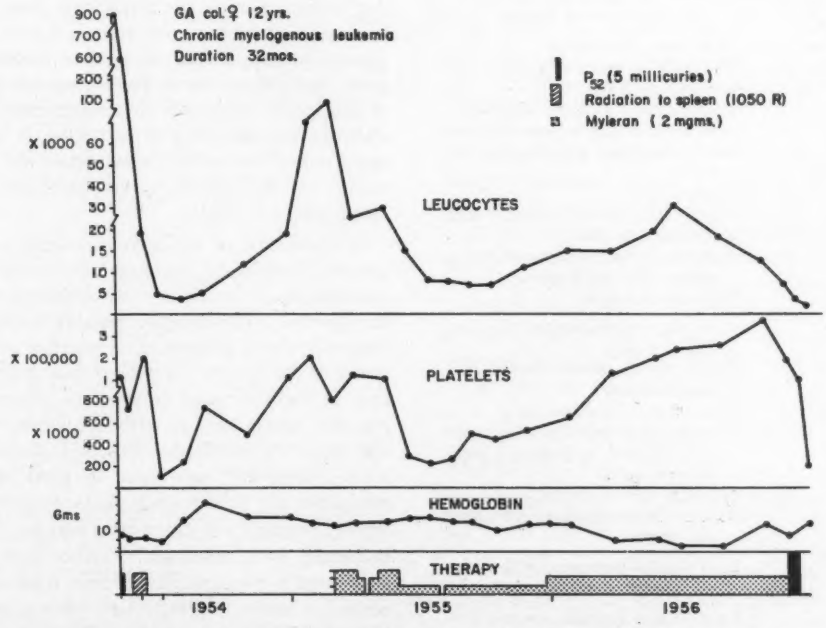

Fig. 1. Remissions due to irradiation of spleen, Myleran, and radioactive phosphorus in a Negro female with chronic myelogenous leukemia.

antagonists such as amethopterin used sequentially or in combination. With these agents, remissions may be obtained which will make it impossible clinically and hematologically to distinguish the child with leukemia from his healthy colleagues. Such a remission has been defined by the Clinical Panel of the Cancer Chemotherapeutic National Service Center as complete remission, that is, an absence of clinical signs and symptoms referable to the disease and findings in the blood and bone marrow within normal limits for the age of the child. In the marrow there should be no cells identifiable as leukemic cells; blasts should be less than 10 per cent and lymphocytes less than 20 per cent. Lesser degrees of improvement may occur, and some children will respond to none of the antileukemic agents. Although there is no cross resistance between the drugs, second remissions with any specific agent are more difficult to produce and tend to be of shorter duration. Since the hazards of therapy are many (table 4) and relapse of the leukemic state is inevitable, repeated and accurately performed clinical and laboratory evaluation of the child is essential.

Among the first of antileukemic agents were the folic acid analogues introduced for acute leukemia by Farber and Subbarow in 1948. These substances act by interfering with the conversion of folic acid to folinic acid, a step necessary for the biosynthesis of nucleic acids. The relatively greater effect exerted by the folic acid antagonists on the leukemic cells in contrast to normal ones is probably due to the greater requirement of the abnormal cells for folinic acid or citrovorum factor. Folinic acid (Leukovorin) is a useful antidote against the manifestations of toxicity of the anti–folic acid drugs. To neutralize the action of aminopterin or amethopterin folinic acid must be administered within an hour after the antileukemic agent. Used in this fashion, however, citrovorum factor counteracts the antileukemic effect of the folic acid analogues as well as the toxic manifestations.

TABLE 4.—*Hazards of Antileukemic Agents.*

Agent	Manifestations of Toxicity
Adrenocortical and adrenocorticotropic hormones[9]	Electrolyte disturbance Hypertensive encephalopathy Diabetes mellitus Predisposition to severe infection: bacterial, candidiasis, and herpetic Osteoporesis and pathological fractures Convulsions Hypoadrenia on withdrawal of drug Emotional reactions Gastrointestinal disturbances, e.g. peptic ulcer, peritonitis Thrombo-embolism
Antimetabolites Purinethol	Bone marrow depression with excessive dosage Rarely: mouth lesions, nausea, diarrhea, jaundice
Methotrexate	Ulcerations of oral mucosa Ulcerations of gastrointestinal tract with diarrhea, melena, and possibly perforation Alopecia, skin eruptions Bone marrow depression with excessive dosage
Myleran	Bone marrow depression with excessive dosage, rarely amenorrhea
Irradiation	Bone marrow depression with excessive dosage Nausea, vomiting, diarrhea

The next chronological development was the introduction of adrenocorticotropic (ACTH) and adrenocortical (cortisone, hydrocortisone, prednisone) hormones. The use of these hormones in the treatment of leukemia was a natural sequence to the observations of Dougherty and White[8] concerning their lymphopenic properties. Hormonal therapy has the advantage of producing remissions quickly (figure 2) and in a slightly higher percentage of cases (table 3) than do the antimetabolites. Remissions are said to be of shorter duration, however, and continuous use of hormones results in the development of Cushing syndrome and many associated complications[9] (table 4). At the University of Texas Medical Branch Hospitals a series of 33 children with acute leukemia have been given hormones in large doses. Diabetes mellitus developed in 3, duodenal ulcer in 1, mental depression in 1, generalized herpes in 1, hypertension in 7, and severe osteoporosis in 5. Because of the tendency to undesirable side effects, children receiving steroid therapy are given large doses of ascorbic acid; a high protein, low salt, and low calorie diet; potassium supplement to combat electrolyte imbalance; and antibiotics to protect against infection. It is considered preferable to reserve steroids for those children severely ill with hemorrhagic and systemic manifestations of their disease, while the more slowly acting antimetabolites are employed in cases where symptoms are milder.

A third type of antileukemic agent was first employed clinically by Burchenal and co-workers.[3] The mechanism of action of the antimetabolite, 6-mercaptopurine (Purinethol), remains incompletely understood. Since it appears to interfere with the synthesis of the nucleic acids by a means differing from that of the folic acid antagonists, however, each of the two agents may be effective when resistance to the other has developed. Figure 3 shows data from a child who was maintained in good hematological remission for 12 months with 6-mercaptopurine. Steroid therapy was given only because of fever and increasing lymphadenopathy before complete remission with 6-mercaptopurine was achieved, and the hormone was withdrawn once remission with the antimetabolite was complete. Maintenance therapy with Purinethol is usually continued throughout the

remission. As with all other antileukemic agents, periodic clinical and hematological evaluation must be carried out to recognize early bone marrow depression by the antileukemic agent or relapse from the leukemic state.

One other adjuvant to leukemia therapy is available. Although there is at present no indication for the use of radiation therapy alone in acute leukemia, used judiciously it may provide relief in the presence of symptoms due to involvement of the skeletal and the nervous systems. Pain due to isolated bone lesions may be relieved by small doses of local irradiation. Antimetabolites appear to pass the meningeal barrier very poorly; hence, even in the face of hematological remissions with these drugs, symptoms due to leukemic infiltrations of the central nervous system may result. These may improve following radiation to the skull, in a dose of 50 r daily for 5 to 10 days.

SUMMARY

Having made the tragic diagnosis of childhood leukemia, the physician may offer to the patient and his parents only temporary prolongation of life with blood transfusion, antibiotics, and antileukemic therapy. If this were all that could be offered, the value of such management might be questioned. With the attention of so many scientists being devoted to research in the field of leukemia therapy, however, it is reasonable to hope that within the lifetime of one of our patients there will be found a more potent and specific agent which has the capacity not merely to prolong the course of the disease but to eradicate it as well.

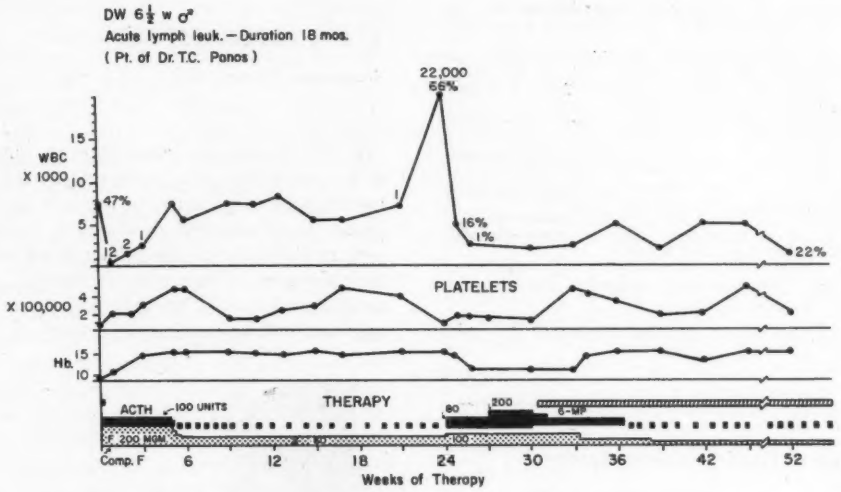

Fig. 2. Remission of 21 weeks due to steroid therapy and a second remission of 25 weeks following addition of Purinethol in a child with acute lymphocytic leukemia. (Along the line representing leukocyte count are numbers indicating the percentage of lymphoblasts in the peripheral blood.)

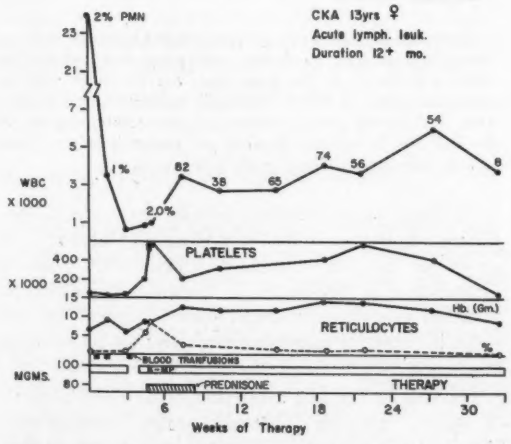

Fig. 3. Remission due to 6-mercaptopurine in a child with acute lymphocytic leukemia. Prednisone was given briefly for fever and increasing lymphadenopathy due to leukemia.

REFERENCES

1. Anderson, R. C.: Familial Leukemia; Report of Leukemia in 5 Siblings, with Brief Review of Genetic Aspects of This Disease, A.M.A. Am. J. Dis. Child. 81:313-322 (March) 1951.
2. Anderson, R. C., and Hermann, H. W.: Leukemia in Twin Children, J.A.M.A. 158:652-654 (June 25) 1955.
3. Burchenal, J. H.; Murphy, M. L.; and Tan, C. T. S.: Treatment of Acute Leukemia, Pediatrics 18:643-660 (Oct.) 1956.
4. Bernhard, W. G.; Gore, I., and Kilby, R. A.: Congenital Leukemia, Blood 6:990-1001 (Nov.) 1951.
5. Cooke, J. V.: Chronic Myelogenous Leukemia in Children, J. Pediat. 42:537-550 (May) 1953.

6. Cooke, J. V.: Acute Leukemia in Twins, J.A.M.A. 152:1028-1029 (July 11) 1953.
7. Diamond, H. D., and Craver, L. F.: Radioactive Phosphorus; In Treatment of Myeloid Leukemia, Cancer 4:999-1008 (Sept.) 1951.
8. Dougherty, T. F., and White, A.: Influence of Adrenal Cortical Secretion on Blood Elements, Science 98:367-369 (Oct. 22) 1943.
9. Good, R. A.; Vernier, R. L.; and Smith, R. T.: Serious Untoward Reactions to Therapy with Cortisone and Adrenocorticotropin in Pediatric Practice (Part I), Pediatrics 19:95-118 (Jan.) 1957.
10. Gross, L.: Mouse Leukemia, Ann. N. Y. Acad. Sci. 54:1184-1196 (July 10) 1952.
11. Hall, B. E.; Richards, M. D.; Willett, F. M.; and Feichtmeir, T. V.: Clinical Experience with 6-Mercaptopurine in Human Neoplasia, Ann. N. Y. Acad. Sci. 60:374-384 (Dec. 6) 1954.
12. Handy, V. H., and Goldberg, I. D.: Occurrence of Malignancies in Children, N. Y. State J. Med. 56:258-260 (Jan. 15) 1956.
13. Krivit, W., and Good, R. A.: Simultaneous Occurrence of Leukemia and Mongolism, A.M.A. J. Dis. Child. 91:218-222 (March) 1956.
14. Merritt, D. H., and Harris, J. S.: Mongolism and Acute Leukemia, Report of Four Cases, A.M.A. J. Dis. Child. 92:41-44 (July) 1956.
15. Pierce, M. I.: Acute Leukemias of Childhood, Pediat. Clin. N. Am., Philadelphia, W. B. Saunders (May) 1957, pp. 497-530.
16. Sacks, M. S., and Seeman, I.: Statistical Study of Mortality from Leukemia, Blood 2:1-14 (Jan.) 1947.
17. Schwartz, S. O.: Etiology of Leukemia: Case for Virus Theory, Blood 11:1045-1047 (Nov.) 1956.
18. Tivey, H.: Natural History of Untreated Acute Leukemia, Ann. N. Y. Acad. Sci. 60:322-358 (Dec. 6) 1954.
19. Turesson, D.: Myleran Treatment in Chronic Granulocytic Leukaemia, Brit. J. Haemat. 3:220-226 (April) 1957.
20. Wilson, S. J.: Clinical and Hematologic Response of Previously Treated Leukemic Subjects to Antimetabolite 6-Mercaptopurine, Ann. N. Y. Acad. Sci. 60:499-507 (Dec. 6) 1954.

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Life Insurance Fund Supports Research

The Life Insurance Medical Research Fund contributed $910,000 to heart research for the year 1956-1957 and allocated $1,061,357 to continue this work the next year. This is the first time such contributions have exceeded the $1,000,000 mark, Dr. Francis R. Dieuaide, scientific director of the fund, states.

Research on hypothalamic control of sodium excretion conducted by John C. Porter, Ph.D., at University of Texas Southwestern Medical School, Dallas, and on functional distension of the kidneys by H. G. Swann, Ph.D., University of Texas Medical Branch, Galveston, were included in the 1956-1957 project supported by the fund, which is sponsored by 148 life insurance companies in the United States and Canada.

Travelers Carry Smallpox

Smallpox was brought into 18 countries last year by international travelers and 8 of these suffered epidemics of the disease, according to the World Health Organization Committee on International Quarantine.

Potent vaccines as well as correct vaccination procedures should be used, said the committee at a recent Geneva meeting. The committee also stressed the need for personnel coming in contact with travelers to maintain a high level of immunity against smallpox by repeated vaccination. The WHO experts drew attention to the advantages of dried smallpox vaccine for mass campaigns. They said that this vaccine was easily transportable and would remain effective without refrigeration.

Primary Intracranial Neoplasms Of Infancy And Childhood

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ALTHOUGH the years show a continuing improvement in the recognition of intracranial neoplasms, the frequency of primary intracranial neoplasms in infancy and childhood is not generally appreciated. Although many factors are involved, perhaps foremost of these is our inclination to look upon neoplastic disease as being largely limited to middle-aged and elderly persons. In a series of 513 patients with histologically verified primary intracranial neoplasms admitted to John Sealy Hospital, Galveston, 84 or 16 per cent were less than 15 years old.[4] Cushing estimated that one-sixth of intracranial neoplasms occurred in patients younger than 16 years.[2] In our series intracranial neoplasms were equally frequent in white and Negro children.

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Approximately one-sixth of intracranial neoplasms occur in infants and children. Cerebellar astrocytoma and medulloblastoma, and glioma of the brain stem are the most common. Ophthalmoscopic as well as neurologic examination is indicated when intracranial tumor is suspected, and roentgenograms of the skull may be helpful. Surgical exploration is indicated unless the tumor is definitely in the brain stem.

Primary intracranial neoplasms of children, as those of adults, comprise a varied group histologically. Taken as a group they are somewhat less favorable than tumors of adults on account of the virtual absence of some types of favorable neoplasms frequently encountered in adults. Gliomas, neoplasms arising

from the supporting cells of the nervous system, made up approximately 90 per cent of the 84 tumors of children in our series. The gliomas most frequently encountered were astrocytomas, of which there were 40 (45 per cent), and there were 22 medulloblastomas (26 per cent) in the series. As in adults, tumors of children show the predilection of certain histologic types for certain anatomic sites; furthermore, there is a relationship between the type of tumor, its clinical course, and prognosis.

In a general way, the clinical features of intracranial neoplasms in children resemble those in adults. The differences depend chiefly upon the fact that in adults cerebral neoplasms are three times as common as neoplasms elsewhere intracranially, while in children two-thirds of the neoplasms occur in the cerebellum or brain stem. The incidence of convulsive attacks in children with brain tumor is therefore much lower than in adults; convulsions may be prominent, however, when the tumor is in the cerebrum. In children with brain tumor, nausea, vomiting, dizziness, and disturbances of coordination and gait are present in a high proportion of patients. On account of the tendency of neoplasms arising in the cerebellum to obstruct the outflow of fluid from the ventricular system, increased intracranial pressure is more frequently seen early in children than in adults. If the child be young, the cranial sutures may be separated readily by increased intracranial pressure. Frequently in infants enlargement of the head is the predominant feature in brain tumor; the diagnosis of hydrocephalus must be made with caution when enlargement of the head begins during the second 6 months of life. Percussion of the head to elicit the characteristic "cracked-pot" sound (Macewan's sign) which depends upon the separation of cranial sutures should not be forgotten in the examination of children. It is hoped that a discussion of the three most common types of neoplasms in our series will emphasize their characteristics and make their recognition easier.

ASTROCYTOMA OF CEREBELLUM

Astrocytomas of the cerebellum made up the largest group in our series. Astrocytomas are so named because microscopically their predominant cells closely resemble the astrocytes of the brain.[1] These cells are mature, highly differentiated, and slow growing, and respond little, if at all, to radiation therapy. In most series astrocytomas occur in children averaging more than 10 years old.[3] Although astrocytomas occur in the cerebral hemispheres, in children they usually arise in or near the midline of the cerebellum. Here the tumor grows slowly, tends to remain circumscribed, and is often associated with a cyst of large size. Often the solid portion of the tumor is a relatively small nodule in the cyst wall. Complete gross removal of the solid portion of a cerebellar astrocytoma is usually possible, and recurrence rarely takes place. A long period of well-being may follow partial removal of these lesions. At times secondary operation undertaken when signs of recurrence appear may then accomplish complete removal of the tumor. The operative mortality in this group of tumors has been low.

This group comprises one of the most favorable groups of brain tumors, both from the standpoint of surgical cure and the patient's ability to lead a normal life postoperatively. Unfortunately, in some patients, the otherwise good result is marred by the fact that blindness is present on account of delayed diagnosis and treatment. Because vision lost on account of increased intracranial pressure does not return with subsequent reduction of pressure, early diagnosis of these lesions is imperative.

In patients with astrocytoma the history of symptoms usually extends over more than 6 months and often exceeds a year. Usually the earliest symptoms are attacks of headache associated with nausea and vomiting. These attacks at first may not recur for considerable periods, but generally they come with increasing frequency and severity. The headache is aggravated by physical activity. Although there is a tendency for the headache to be generalized, often it is chiefly in the back of the head and neck. The headache is particularly likely to be present upon awakening and to disappear within a few minutes to a few hours. Vomiting often occurs at the height of the headache; almost always nausea precedes vomiting and there is no relationship to the taking of food. There may be a rapid lessening in the patient's complaints after vomiting, and it is not uncommon for him to ask for food within a half hour of vomiting. Often even when the patient feels well it is noted that he is clumsy and there is a tendency to stagger.

Examination of these patients often shows surprisingly little abnormality. As a rule their nutritional state is good and they are quiet and cooperative. The "cracked-pot" sound is usually present upon percussion of the head. When headache exists at the time of examination, nuchal rigidity and tenderness are usually present. Papilledema is usually present. The gait is with a wide base and the Romberg test positive. Roentgenograms of the skull show evidence of increased intracranial pressure, and suture separation is almost always present. Although the diagnosis of cerebellar tumor usually may be made from the history and neurological findings, it has been our practice to make a ventriculogram upon these patients. Ventriculography almost invariably shows a rather marked dilatation of the ventricular system caused by the obstruction by the tumor. Furthermore, the aqueduct of Sylvius is usually sharply kinked

anteriorly a short distance caudal to its origin. At times the fourth ventricle is visualized and is seen to be displaced away from the tumor. Suboccipital craniectomy should be made the day of ventriculography as operation will relieve the obstruction and the mortality and morbidity will be less than with a delayed operation.

CASE 1.—An 11 year old white boy was admitted to the hospital complaining of headache, vomiting, and dizziness. This boy's head had always been large for his age, and 2 years earlier he could not wear his father's hat. He had complained of headache at school for an undetermined period. Attacks of severe pain in the back of the neck and head associated with vomiting began in January, 1942. These were attributed to a fall from a horse a week earlier. Attacks of headache occurred at intervals of every 2 or 3 weeks. Six months before admission it was noted he walked unsteadily, and later he could not stoop forward without falling. Five weeks before hospitalization he had quit school as he saw double and words on the page "went together."

Examination showed a listless, well developed, and well nourished boy. His head was obviously large and measured 23.5 inches (58.7 cm.) in circumference. Macewan's sign was present. There was bilateral papilledema, and visual acuity was 20/40 bilaterally. There was ataxia in the use of the upper and lower extremities; the gait was unsteady, and there was a tendency to fall to the right. There was a right-sided Babinski response; the deep reflexes were hyperactive, more so on the right. Roentgenograms of the skull confirmed the cranial suture separation.

Ventriculography showed tremendous ventricular dilatation with anterior angulation of the cerebral aqueduct. Craniotomy exposed a very large cystic neoplasm in the cerebellar vermis; the tumor was readily removed.

After return home this boy discontinued school chiefly on account of poor vision. Thirteen years after operation he had no other symptoms referable to his hospitalization for brain tumor.

MEDULLOBLASTOMA OF CEREBELLUM

Medulloblastoma of the cerebellum was the second most frequently encountered tumor in our series. These occur in younger children than do astrocytomas (in most series the average age is approximately 4 years), and are twice as frequent in males.[3] Medulloblastomas are comprised of small cells with chromatic nuclei which resemble undifferentiated cells in the developing nervous system.[1] These cells have the potentiality to develop into either glial cells or neurons. Medulloblastomas arise in the roof of the fourth ventricle; their growth early obstructs this cavity. Fragments of the neoplasm frequently break off, floating in the spinal fluid to implant and grow in secondary locations in the subarachnoid space. Implants are most common in the lumbar region where they produce severe pain in the back and lower extremities. Although occasionally complete gross removal of medulloblastomas may be accomplished, recurrence always takes place. Medulloblastomas are more sensitive to radiation than any other brain tumor. Radiation usually considerably prolongs the survival of these patients although the average postoperative length of life in our series is only 25 months. The operative mortality in this group of tumors was the highest encountered in our series; 40 per cent were dead within 2 months of operation.

Often the clinical picture in patients with medulloblastomas closely resembles that of patients with astrocytoma. The preoperative duration of symptoms, however, is usually less than 6 months; the symptoms are less intermittent; vomiting and weakness are prominent with a noticeable loss of weight and

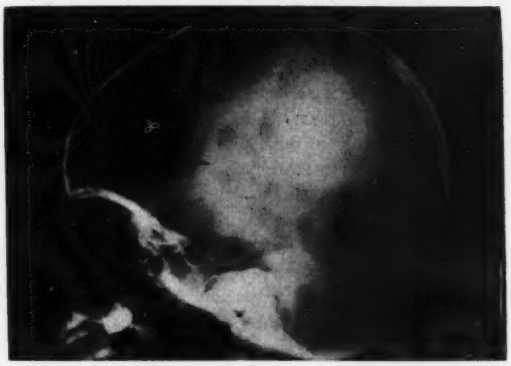

Fig. 1. Lateral film of a skull showing separation of the coronal suture. Separation of the lambdoid suture is also perceptible.

strength; often the patient is bedfast. Papilledema is usually present; nystagmus is also frequent; and the gait is noticeably unsteady. Roentgenograms of the skull show suture separation in the majority of patients. In this group of patients, as in most patients with brain tumor, we have performed ventriculography preliminary to operation upon the tumor. With medulloblastoma ventriculography shows considerable dilatation of the ventricular system, but this is generally less in degree than in astrocytoma. The fourth ventricle is usually visualized, and the tumor appears as a mass filling its caudal portion.

As a rule operation is limited to the removal of a sufficient quantity of the neoplasm to relieve the obstruction of the fourth ventricle. As soon as wound healing permits, roentgen therapy is given to the cerebellum, and in order to control the growth of any implants which may have occurred, the entire subarachnoid space is radiated. With such management most of these children have a symptomatic return to normal for a year or more. With the return of symptoms radiation is repeated but a much less notable improvement follows.

CASE 2.—A 4 year old boy was admitted to the hospital on account of attacks of headache, nausea, and vomiting which began 6 weeks earlier. Headache had been present almost every morning when he awakened, and he had vom-

ited several times weekly. Headache had become more severe, and he had become weak and unsteady with a tendency to deviate to the right. There was clumsiness in the use of the hands, worse on the left.

Examination showed a moderately dehydrated, poorly nourished, listless but uncooperative boy. There was a positive Macewan's sign, and the neck was somewhat rigid. There was bilateral papilledema, and lateral nystagmus was present. There was moderate ataxia in the use of the upper and lower extremities. There was marked hypotonia, and except for the ankle jerks the deep reflexes were not obtained.

Roentgenograms of the skull confirmed cranial suture separation. A ventriculogram showed moderate ventricular dilatation; a filling defect produced by the tumor was seen in the fourth ventricle.

At craniotomy a granular grayish-brown neoplasm was found projecting from the fourth ventricle. A sufficient portion of the tumor was removed to relieve the ventricular obstruction. Two weeks postoperatively radiation to the cerebellum and subarachnoid space was begun. Three weeks after operation rapid improvement started. Three months after operation there were no complaints, but the suboccipital region was somewhat full. Nystagmus was still present. Although the Romberg test was positive, the patient's physical activities were approximately normal.

Sixteen months after operation headache, vomiting, and unsteadiness reappeared; roentgen therapy was resumed. Two months later there was left facial weakness; soon thereafter numbness of the left side of the face was noted along with left-sided deafness. Two years after operation the patient was vomiting frequently, suffering with headache, and unable to sit up or carry on any activity. He died 25 months after operation.

GLIOMA OF BRAIN STEM

Glioma of the brain stem has been encountered with greater frequency than our statistics indicate. This type of tumor is not suitable for or accessible to surgical attack; consequently, the majority of these patients die outside the hospital so that histologic verification of the neoplasm is rarely accomplished. It has been estimated that these tumors comprise 15 to 20 per cent of all intracranial neoplasms in childhood. Although these neoplasms vary somewhat histologically, they are usually composed of mature highly differentiated glial cells. These infiltrate among the fiber tracts allowing the function of these engulfed pathways to continue for considerable periods.

The earliest and most prominent symptoms are disturbances of eye movements and hemiparesis. Unsteadiness is often prominent on account of interference with the efferent cerebellar pathways. Vomiting is likewise frequent and is more often of a projectile character than with other types of brain tumor. As a rule headache is a relatively late development in patients with tumors of the brain stem, and papilledema and suture separation is rarely seen. On account of the lack of symptoms or signs of intracranial pressure these patients are not infrequently thought to be suffering from poliomyelitis, encephalitis, or some other postinfectious complication. In recent years we usually have confirmed the clinical diagnosis in these patients by pneumoencephalography or, if papilledema is present, by ventriculography. When the aqueduct and fourth ventricle are not unequivocally visualized, we have introduced a small quantity of pantopaque into the lateral ventricle and while manipulating the head have watched its passage into the third ventricle and through the cerebral aqueduct and fourth ventricle. Rarely has operation to bypass ventricular obstruction produced by the tumor been indicated. These neoplasms have shown a variable response to radiation, and only infrequently has improvement been as great or as long retained as in medulloblastomas.

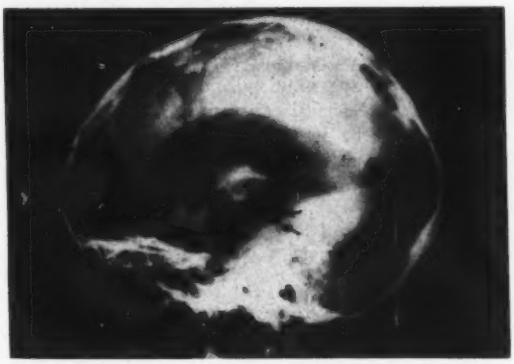

Fig. 2. Lateral film of the skull after ventriculography. There is marked dilatation of the lateral and third ventricles. Arrows indicate the site of anterior kinking of the aqueduct of Sylvius caused by midline cerebellar astrocytoma.

CASE 3.—A 4 year old child was admitted to the hospital on account of crossing of her eyes and weakness of the left side of the face and of the right arm. Two months earlier strabismus was noted, and soon the facial weakness appeared. A tremor appeared in the right arm, and the head could not be turned well to the left. Her speech became somewhat slurred, and it was believed her hearing had diminished bilaterally. The head was held in a "cocked" position slightly turned to the right. There was inability to turn the eyes to the left (disturbed conjugate deviation), and there was also left internal strabismus. The left pupil was larger than the right. The tongue deviated to the left, and the left half of the tongue was atrophic; the speech was slurred. There was an involuntary tremor of the right arm, and the right grip was weak. There was hypotonia of the muscles, and the deep reflexes were sluggish. A right Babinski response was present. The gait was unsteady with tendency to fall to the left.

Roentgenograms of the skull showed no abnormalities.

Pneumoencephalogram showed the spinal fluid pressure and the spinal fluid to be normal. There was slight dilatation of the ventricular system. The cerebral aqueduct and fourth ventricle were displaced posteriorly indicating increased size of the brain stem and thus establishing presence of neoplasm therein.

Following pneumoencephalogram the patient received a course of roentgen therapy directed to the brain stem. This

produced some objective improvement in the use of the right arm and in the gait, but there was no definite change in the cranial nerve signs.

This patient is reported to have died 15 months after hospital admission. She had not returned for follow-up examination in that interval.

DISCUSSION

Consideration of the possibility of intracranial tumor in children leads to an earlier and more frequent recognition of this condition. When this diagnosis is seriously entertained, ophthalmoscopic examination as well as neurologic examination is indicated. Roentgenograms of the skull often provide helpful information. Lumbar puncture may be dangerous to the patient and rarely provides useful information. In most instances special neurosurgical diagnostic studies, such as ventriculography, will be required to establish the diagnosis. Surgical exploration should be carried out as soon as the diagnosis of intracranial tumor can be established, unless the tumor is unequivocally located in the brain stem. The results in patients with cerebellar astrocytoma compare favorably with the best results obtained surgically in any other neoplastic disease.

REFERENCES

1. Bailey, P., and Cushing, H. W.: Classification of Tumors of Glioma Group on Histogenetic Basis with Correlated Study of Prognosis, Philadelphia, J. B. Lippincott Co., 1926.
2. Bailey, P.; Buchanan, D. N.; and Bucy, P. C.: Intracranial Tumors of Infancy and Childhood, Chicago, University of Chicago Press, 1939, pp. 11-12.
3. Cuneo, H. M., and Rand, C. W.: Brain Tumors of Childhood, Springfield, Ill., Charles C Thomas, 1952.
4. Earle, K. M.; Rentschler, E. H.; and Snodgrass, S. R.: Primary Intracranial Neoplasms, Prognosis and Classification of 513 Verified Cases, J. Neuropath. & Exper. Neurol. 16:321-331 (July) 1957.

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Older Persons Complain Less About Hospital Nursing Care

Older patients in small hospitals have the fewest complaints about the quality and quantity of nursing care, according to an article published in the November issue of *Hospitals* based on a survey of patient opinion. The Public Health Service with the cooperation of the American Hospital Association conducted the survey among nearly 9,000 patients in 60 hospitals.

Patients in the smaller hospitals, 100 to 299 occupancy, reported the least number of omissions of nursing care while patients in the 300 to 499 size hospitals reported the most omissions, said the authors of "Polling Patients and Personnel." The older patient was concerned with small details of comfort while the younger person was preoccupied with boredom, the survey showed. The younger person liked to have more people around him.

Lymphoma In Children

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UNDER the term "lymphoma" in this report, we include Hodgkin's disease and lymphosarcoma. Further subdivision of these two broad groups would serve no useful purpose in a small series. It may not be justified even from oncologic considerations, for some observers believe the various cytologic types of these diseases to be but varying stages of a common process.[2] In our tabulations, "Hodgkin's disease" includes the granulomatous and sarcomatous types; "lymphosarcoma" includes giant follicle, lymphoblastic, lymphocytic, and reticulum cell sarcomas. Patients with leukemic hemograms have not been included in this study.

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Lymphomas rank among the most common malignant tumors of childhood. At the University of Texas Medical Branch, of 292 patients with lymphoma registered from 1942 to 1955, there were 22 children. Adequate radiotherapy offers palliation of distressing symptoms and appears to prolong life.

Among the malignant tumors of childhood, the lymphomas rank among the most common in published reports. In a previous communication on our experiences with radiation therapy for children, lymphomas ranked second to brain tumors in frequency among neoplasms treated in our department. Such comparisons are not identical with the absolute incidence of these diseases, since not all patients with malignancy come to medical centers, nor are they all treated by radiation therapy. However, most children with cancer are so treated, either as a method of choice or in cooperation with other therapy, and such reporting is probably valid in indicating relative figures of incidence. During the period covered by this study (1942-1955), all children in our institution with lymphoma were referred for radiation therapy except 1 with a single ileal lesion.

The extent to which lymphoma occurs in childhood, compared to all lymphomas as reported in several representative series, is indicated in table 1. Some reports have indicated age distribution by decades, and some by the widely accepted pediatric

TABLE 1.—*Occurrence of Lymphoma in Children.*

Author	Cases of Lymphoma	% in Children	Age Range (yr.)
Sugarbaker & Craver[5]	196*	9	0-20
Minot & Isaacs[6]	477	11	0-15
Gall & Mallory[3]	545	13	0-20
Schneider & Bakker	292	7.5	0-15

*Lymphosarcoma.

grouping of all patients up to 15 years of age. Despite this inconsistency, the closeness of the percentages of pediatric lymphoma occurrence is noteworthy. In our hospital, 22 (7.5 per cent) of 292 lymphomas, registered between 1942 and 1955, were in children.

Within our pediatric group of lymphomas, there is a sex ratio of 14 males to 7 females. The age distribution graph in figure 1 reflects the high incidence

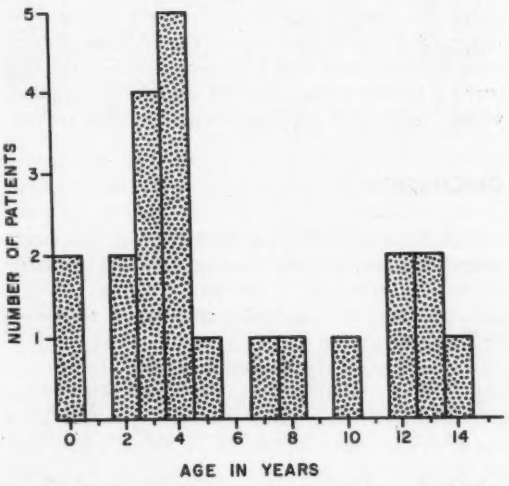

Fig. 1. The age distribution of pediatric cases of lymphoma at the University of Texas Medical Branch (1942-1955).

among younger children with the extremes occurring at birth and at age 14 years. Of the 22 cases, 13 occurred in the age range 0-4 years; 3 in the range 5-9 years; and 6 in the range 10-14 years.

CLINICAL STAGES

The clinical staging of malignancy is a vital aid to underscore the importance of early recognition and treatment of the disease, and to understand the need for variation in the therapeutic approach at different stages in the natural history of a cancer. Such staging is an expression of clinical appraisement, upon which the choice of treatment depends. It is therefore necessary even though we recognize a measure of discrepancy between clinical determination of the extent and anatomic (possibly microscopic) distribution of the disease. The stages are defined in table 2 and are almost identical with those of other writers on the subject.[7] Inevitably, some cases classed as stage I or II at the time of initial recognition revealed clinical evidence of more generalized disease soon thereafter; the original staging was maintained, however. We have chosen to include in stage III those cases with but two areas involved if those areas are not adjacent, implying that the appearance of the disease in areas distant from each other surely indicates generalized lymphoma (table 2). Of the 8 cases in stages I and II, 4 involved only the left cervical nodes, 1 involved left and right cervical nodes, 1 involved only the right orbit, and 1 the ileum.

TABLE 2.—*Clinical Stages of Lymphoma.*

Stage	Extent of Involvement by Lymphoma
I	One regional group of lymph nodes, or one extranodal site.
II	Two adjacent lymph node groups.
III	Two separated lymph node groups; three or more groups.

It is to be expected, of course, that the more generalized disease at the time of diagnosis will lead to shorter survival times than localized disease, and little if any weight can be attached to this difference from the standpoint of therapy. Classified by clinical stages, these patients reveal differences in ages of onset, in cytologic types, and in survival times (table 3).

Differences in ages and cytologic types are striking when one compares the early and late stages. The average ages in table 3 reflect our finding that 6 of the 8 stage I-II patients were older than 5 years of age. Further, the stage III cases were preponderantly lymphosarcomas (12 of 14) in contrast to the equal distribution of Hodgkin's disease and lymphosarcoma (4 of each) in the earlier cases. One suggestion derived is that lymphosarcoma is more rapid in its course among younger patients. The disparity shown between the early and late stages, in the ratio of Hodgkin's to lymphosarcoma cases, also indicates the more rapid course generally found with lymphosarcoma, particularly if one notes that at least 1 of the latter in stage I is orbital in location and thereby may carry a more favorable prognosis. The lymphosarcoma of the ileum may be assumed to be of lymphnodule origin in a Peyer's patch. Of the two Hodgkin's cases among the stage III group, 1 was cytologically identified as Hodgkin's sarcoma, a disease of

greater malignancy than granulomatous Hodgkin's disease, and considered by Custer and Bernhard[2] to be virtually identical with reticulum cell sarcoma.

"DELAY FACTORS"

In table 4, an attempt is made to summarize the points at which there occurred delay between the onset of lymphoma and the first date of definitive treatment. This type of analysis tends to demonstrate whether or not we ought to be content with the results of present education of lay and professional groups in the need for early recognition of cancer, if earlier recognition is to affect survival rates favorably. In lymphoma, it points up the difference in rapidity of the natural course of Hodgkin's disease and of lymphosarcoma.

The "parent" delay factor represents the time elapsed between the onset of symptoms or signs, and the first visit to the physician. The "physician" delay factor includes the time that passed before a tissue diagnosis was made and the additional time, which may have been partly a "parent" delay in some cases, before definitive treatment was instituted.

It is apparent that the more benign appearance of Hodgkin's disease and its more insidious course in children lead to longer delays until treatment; the delays for lymphosarcoma are relatively brief, a token of the more dramatic rapidity with which clinical signs arise, increase, and cause alarm. In this regard, it should be borne in mind that lymphosarcoma was overwhelmingly predominant in the stage III group.

There are occasional exceptions to this difference in natural history of the two broad cytologic groups: Hodgkin's sarcoma shows the relative malignancy of lymphosarcoma, of which it may be a transitional stage. On the other hand, giant follicle sarcoma has a characteristically long and more benign course before transition to more malignant cytologic and clinical types.

TREATMENT

The treatment was radiotherapeutic in all but 1 case: alone, followed by, or in combination with, radiomimetic chemicals, cortisone, or surgery (1 case). Most cases were treated by radiotherapy alone; treatment techniques and schedules have changed as responsible personnel has changed during the years these cases were seen (1942-1955). A consistent pattern of treatment effects does not emerge from so small a group. The senior author has followed the acceptable plan of prescribing more intensive radiotherapy for the stage I and stage II cases, at tumor doses of 3,500 r, and moderate regional or total body doses for the stage III cases. The supplementary use of radiomimetic chemicals in a few of our patients has added little or nothing measurable to survival times, but these drugs are used usually in the more advanced stages of the disease. The addition of cortisone, however, may well have contributed to the long survival to date of one stage III patient (66 months), whose diagnosis of lymphosarcoma was made at birth.

DISCUSSION

A voluminous literature on malignant lymphoma exists, but few authors have studied the pediatric

TABLE 3.—*Number and Type of Lymphoma, Average Age at Onset, and Average Survival Periods, According to Stage of Disease at Time of First Treatment.*

Stage	Number of Patients			Age at Onset (yr.) Av.	Age at Onset (yr.) Extremes	Survival in Months* From Onset Av.	Survival in Months* From Onset Extremes	Survival in Months* From Treatment Av.	Survival in Months* From Treatment Extremes
I, II	8	Hodgkin's	4	8.5	3-14	52.3	29.5-101	38.8	21-100
		Lymphosarcoma	4						
III	14	Hodgkin's	2	4.5	birth-14	12.6	3-66	9.5	1-65
		Lymphosarcoma	12						

*Patients with maximum survivals all living.

TABLE 4.—*Delay Factors in Recognition and Treatment of Lymphoma.*
(Figures represent average and extremes of delay in months.)

Cytology	Parent Factor	Physician Factor Diag.	Physician Factor Therapy	Total Delay	Survival Time From Therapy	Survival Time Total
Hodgkin's	5.3	9.7	1.1	16.1	18*	33.9*
Extremes	0-17	0-24	0-4		3-25	8-61
Lymphosarcoma	0.5	2.4	0.4	3.3	10.6†	14.5†
Extremes	0-3	0-9	0-4		1-64‡	3-65‡

*Including 1 Hodgkin's sarcoma, represented here by the minimum extreme.
†Excluding one extranodal (orbital) stage I patient, now surviving 9 years after surgery and radiotherapy.
‡Patient with maximum survival still living.

group in any detail in their reports. Our findings indicate that, although there was much less delay in bringing the children with lymphosarcoma to treatment (table 4), most of them were already stage III cases, a measure of the more malignant early invasiveness of these neoplasms than of Hodgkin's disease (table 3). The insidious onset of many Hodgkin's cases and a lack of suspicion acute enough to obtain earlier tissue examination of lymphadenopathies are yet accompanied by a relatively high proportion of early cases of Hodgkin's disease. Consequently, we find longer average survival times than for lymphosarcoma in the children of this series.

On the other hand, the longest individual survivals (all patients living now) of this entire group occurred in cases of lymphosarcoma, 2 of which were stage I cases and 1 a stage III case treated with roentgen therapy and cortisone. This is not inconsistent with the findings of Lenz, Wells, and Stout,[5] in whose series lymphosarcoma showed higher 5 and 10 year survival rates than Hodgkin's disease.

Age has been cited as an influence on prognosis for these neoplasms,[3, 4] which are said to follow a more malignant course in children and in elderly patients than in young and middle-aged adults. This impression seems particularly valid for lymphosarcoma in our pediatric patients.

Twelve of 14 patients 5 years old or younger had lymphosarcoma, and 11 of these 12 had stage III disease. Since the delay in obtaining treatment for the latter group is probably less than in adults, favorable alteration of the relatively rapid downhill course in children must be attempted by improved therapeutic efforts in the direction of consistently adequate radiation dosage where possible, combined with adjuvant chemical and/or steroid therapy.

The influence of treatment on the course of malignant lymphoma is twofold: the palliation of distressing symptoms and the prolongation of life with possible long-term survivals and even cures. There has been some degree of pessimism with respect to the ability of any therapy to prolong life in these patients. Control series of untreated patients are difficult to gather, especially in the pediatric age group; we have none, inasmuch as some treatment, however limited or palliative in some instances, was given to all pediatric cases during the time encompassed by this study. Gall and Mallory,[3] however, found that, for all ages, 76 patients not treated survived an average of 0.8 years from onset, whereas 545 patients in the entire group studied clinically (including the untreated ones) survived an average of 2.9 years. Except in Hodgkin's sarcoma and the lymphoblastic type of lymphosarcoma, treatment prolonged life, in their opinion. The long-term, symptom-free survivals demonstrated by Lenz and others[5] provide strong support for a positive therapeutic approach to lymphoma. The conclusion drawn by Jelliffe and Thomson,[4] that the stage of the disease is more important than duration of symptoms, also may suggest that a slower natural history of some cases may offer the opportunity for long-term, symptom-free survival ("cure") by the use of intensive local roentgen treatment in the earlier stages. As in other malignancies at all ages, the most important single factor basic to the outcome for the patient is the natural history of the neoplasm, yet it has been demonstrated that this factor may be modified by adequate therapy.[1]

SUMMARY

Lymphoma among pediatric patients at the University of Texas Medical Branch, during the years 1942-1955, is reviewed. Of a total of 292 patients registered here with lymphoma during this period, 22 (7.5 per cent) were children.

Characteristics of age and sex distribution and factors contributing to delay in diagnosis and treatment are summarized from this study. Also discussed are the influences on survival time of the clinical stage of disease, of the broad cytologic group, and of treatment.

REFERENCES

1. Craver, L. F.: Lymphomas and Leukemias, Bull. New York Acad. Med. 23:79-100 (Feb.) 1947.
2. Custer, R. P., and Bernhard, W. G.: Interrelationship of Hodgkin's Disease and Other Lymphatic Tumors, Am. J. M. Sc. 216:625-642 (Dec.) 1948.
3. Gall, E. A., and Mallory, T. B.: Malignant Lymphoma; Clinico-Pathologic Survey of 618 Cases, Am. J. Path. 18:381-429 (May) 1942.
4. Jelliffe, A. M., and Thomson, A. D.: Prognosis in Hodgkin's Disease, Brit. J. Cancer 9:21-36 (March) 1955.
5. Lenz, M.; Wells, J.; and Stout, A. P.: Hodgkin's Disease and Lymphosarcoma, in Portmann, U. V. (Ed.): Clinical Therapeutic Radiology, ch. 29, New York, Thomas Nelson and Sons, 1950, pp. 545-570.
6. Minot, G. R., and Isaacs, R.: Lymphoblastoma (Malignant Lymphoma); Age and Sex Incidence, Duration of Disease and Effect of Roentgen-Ray and Radium Irradiation and Surgery, J.A.M.A. 86: 1185-1189 (April 17); 1265-1270 (April 24) 1926.
7. Peters, M. V.: Study of Survivals in Hodgkin's Disease Treated Radiologically, Am. J. Roentgenol. 63:299-311 (March) 1950.
8. Sugarbaker, E. D., and Craver, L. F.: Lymphosarcoma, Study of 196 Cases with Biopsy, J.A.M.A. 115:17-23 (July 6) 112-117 (July 13) 1940.

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Decreased Calories Will Control Weight

A person should decrease his caloric intake by 10 per cent each decade, 1 per cent a year, to prevent gaining weight, according to Dr. Herbert Pollack, associate professor of clinical medicine, New York University Post-Graduate Medical School. A man of 20 can expect to gain about 50 pounds by the time he reaches 60 if he continues to consume the same number of calories without a regular decrease, reports Dr. Pollack.

Osteogenic Sarcoma

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THE PATIENT, a 13 year old girl, was first seen on July 5, 1955, for painful swelling in the region of the right knee. The swelling was first noted in January and had increased gradually since that time; the pain was of 1 month's duration. Examination revealed an apparently healthy teenage girl with a 10 cm. fusiform tender mass over the anteromedial aspect of the proximal end of the right tibia. The clinical and radiologic impressions were of osteogenic sarcoma. Removal of a section for biopsy under tourniquet confirmed the impression. High thigh amputation was performed on July 7; pulmonary metastases were visible by roentgen ray on November 7; the patient died on June 7, 1956.

The foregoing is typical of the history and course of osteogenic sarcoma. The patient is between the ages of 10 and 20 years; he has a tumor in the region of the knee; he dies of pulmonary metastases 1 year after diagnosis regardless of mode of treatment. It is

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The typical case of osteogenic sarcoma occurs in a patient between the ages of 10 and 20 years; he has a tumor in the region of the knee; and he dies of pulmonary metastases 1 year after diagnosis regardless of treatment. Pain, swelling, limitation of motion, limp, and perhaps local heat and discoloration are early symptoms. Surgical ablation preceded by irradiation is the usual treatment.

because of this consistently dismal outlook that the radiologist and surgeon have a sense of frustration when confronted with such a case. The disease is a major unsolved problem from the standpoint of management. There have been occasional encouraging publications, but from the relatively few significant reports available there is only suggestive evidence that one method of handling is more effective than another in increasing the survival time.[5, 7, 8, 10, 14]

There are but two variables subject to the control of the physician which may reasonably influence the survival: the time of recognition and the type of treatment. It is the specialist who determines the management, but the opportunity for recognition usually rests with the family physician. It is thus with the recognition and methods of management of osteogenic sarcoma that this writing is principally concerned.

INCIDENCE

It has been estimated that the incidence of osteogenic sarcoma is 1 in 117,000 for the general population.[6] The tumor occurs in all ages, but incidence between the ages of 10 and 20 is so high that it is apparent there must be a definite relationship between the etiology and the factors governing the rapid growth period of the patient. There is decline in the incidence in the third decade which continues until after the age of 50 when there may be a slight rise. Osteogenic sarcoma occurring at this age is usually secondary to preexisting disease such as osteitis deformans or enchondromas.

The tumor is seen more often in males than females in a ratio of about 3 to 2. There is no racial predilection or immunity.

MORTALITY AND SURVIVAL

The mortality rate for the general population has been quoted at 90 to 95 per cent.[15] No figure is available for each of the various age groups.

Five year survival rates as given in the available literature vary from 5 to 30 per cent. Lichtenstein[17] proposed that the more optimistic reports include lesions other than osteogenic sarcoma. A recent comprehensive report from Mayo Clinic gives a figure of 19.3 per cent. Our own rate covering only a 10 year period is 18 per cent in the histologically proven cases.

TERMINOLOGY

The term osteogenic sarcoma establishes that this is a tumor which possesses the potential for bone formation or which arises from bone-forming mesenchyme.[17] It is a characteristic of this tumor, though the basic cell is of spindle type, that in random fields of one lesion there may be found osteoid tissue, cartilage, myxoid material, or dense fibrous tissue. It is tempting thus to incorporate each of these in the name of the tumor, but it is more practical and less confusing to make exclusive use of one term and to qualify this as necessary with pathologic and roentgen description.

ETIOLOGY

Direct trauma has never been proven as a cause of osteosarcoma, though there is often history of trauma, but there is good documentation of cases of osteosarcoma arising after radiotherapy,[13] and radioisotopes and chemical preparations such as beryllium sulfate[16] have produced it experimentally; thus it might be plausible to implicate other agents of environmental or cellular alteration such as direct trauma, infection, high fever and inanition, vitamin deficiency, or endocrine disturbance; and it is possible that there does exist, to affect the total chain of events, an individual or even hereditary predisposition. Whatever the etiology, it must surely be, as Coley suggests,[6] a combination of inconstant factors, and it remains at present obscure.

SITE

Though the tumor may occur in any bone, it is found most often at the ends of long bones, the lower end of the femur and the upper ends of tibia and humerus being the common sites. Other less common sites are fibula, ilium, vertebrae, jaw, scapula, and clavicle. Of our cases, 6 occurred in the distal femur, 5 in the proximal tibia, 2 in the proximal humerus, 1 in the proximal femur, and 1 in the clavicle.

It is not unreasonable that the tumor should occur often in metaphyseal areas. It is here that the active cellular elements of the marrow are concentrated; it is here that blood supply is copious and blood flow sluggish; it is here, because of epiphyseal proximity, that growth is most active and that cell rests may be found; and it is this region which is most liable to trauma, should this be a factor.

CLINICAL FEATURES

Osteogenic sarcoma is so insidious in its growth that it is rarely the fortune of the physician to make a diagnosis before the tumor has reached consequential proportions, and it may matter little then whether the patient has sensed irregularity for 1 week or 6 months. There is always, however, the chance case which with slight complaint or minor manifestation gives opportunity to one aware.

The most which can be said concerning early symptomatology is that it is nonspecific. We have these manifestations from which to draw: pain, swelling, limitation of motion, limp, and perhaps local heat and discoloration.

Pain logically should be the earliest symptom, and bone pain has a character which is distinctive. It is deep and often throbbing and is poorly relieved by aspirin. It may result from intracortical pressure or from elevation of the periosteum. As a tumor proliferates, the pressure within the bone increases, and if this pressure is not sufficient to give vague pain, the onset of discomfort may coincide with cortical penetration and elevation of the periosteum. Thus in the earlier stages the pain, though constant, may be mild and relieved by rest so that the child may go for several weeks or even months before he mentions the discomfort. Or it may be that trauma to the part will accentuate the discomfort or cause apparent acceleration of growth. The pain pattern then may be not unlike the so-called growing pains. It will be deep and perhaps poorly localized until cortical or periosteal involvement or the appearance of a soft tissue mass give it palpable localization. It may be present for a few days and then diminish only to increase in severity a month or so later.

Local swelling (fig. 1), except that following trauma, is usually persistent once it occurs. As a rule pain will accompany or even precede the swelling, but

Fig. 1. There is moderate fusiform enlargement. The patient was aware of swelling just 1 month prior to this photograph. He has survived 5 years. This is the same patient as in figures 3 and 10. (Case 11.)

with certain tumors the pain associated with central pressure or with cortical and periosteal encroachment may have been transient and forgotten or dismissed; and the subsequent advancement slow enough as not to cause appreciable discomfort. This possibility is reflected in the tabulation of initial symptoms (table 2).

If the tumor has grown rapidly and has a vigorous blood supply, there will be local heat and redness or other discoloration often associated with prominently visible subcutaneous vascularity (fig. 2).

If the tumor is in the region of or involves a joint or its supporting structures, there may be limitation of motion; and if it is in a weight bearing extremity, there may be a limp. If the extremity has been favored for some time, there will be muscle atrophy.

Fig. 2. There is marked swelling with prominent subcutaneous vascularity overlying a large radiologically osteolytic tumor. There was an 8 month history of painless swelling. Survival was 1 month from the date of this photograph.

Of our patients 8 complained initially of swelling, 4 of pain, 1 of limp; and in 2 instances fracture occurred before the patient had any awareness of the tumor.

The manifestations of the later stages of sarcomal growth are more clearly defined. Although some tumors may attain great size without causing appreciable generalized symptomatology, in the majority of cases as the tumor reaches recognizable proportion there will occur varying degrees of anorexia, weight loss, general inanition, and low grade fever. The sedimentation rate may be elevated, the hemoglobin lowered, and the alkaline phosphatase will vary with the tumor's osteoblastic activity, but these laboratory findings are of more academic interest than diagnostic importance.

ROENTGEN EXAMINATION

It has been stated that when a lesion can be recognized by roentgenogram the growth is already advanced. It may be stated, however, with as much security that until the lesion can be visualized by means of roentgenogram, no positive diagnosis of bone tumor can be made by any means. Roentgenography is thus the most important and the only essential aid to the early recognition of bone sarcoma, and the free employment of this diagnostic aid in suspected cases cannot be too much encouraged.

In the roentgen examination of bones one looks for the absence of bone where it normally should be found and for the presence of bone where it should not be found; the pattern of rarefaction or proliferation is determined by the type of pathologic process. In the osteogenic sarcoma the pattern is determined by the ability of the tumor to destroy normal bone and to form tumor bone. If the bone producing tendency is great, bone destruction is accompanied by tumor bone production, and the tumor is called osteoblastic or sclerotic. If there is little tendency to form new bone, the process will appear largely destructive, and the tumor is called osteolytic.

The active cellular elements of the tumor destroy and replace bone, and most often the earliest change noted in the roentgenogram is localized, irregular, and as a rule multiple areas of rarefaction (radiolucency). The areas of bone destruction often merge imper-

Fig. 3a. Lateral view of the knee showing mixed osteolytic and osteoblastic lesion in the proximal tibial metaphysis. Parallel periosteal new bone and perpendicular "sun-ray" spiculation are seen posteriorly.

b. Anteroposterior view of the knee in the same patient showing Codman's triangle at the distal extremity of the tumor. Proximal spread has been halted at the unfused epiphyseal plate.

ceptibly into the normal bone shadow. If the growth of the tumor continues unabated, the cortex is eventually perforated (not expanded);[3] this is seen as numerous areas of cortical discontinuity in the metaphyseal end of the shaft of the bone. Because of metaphyseal density and cortical superimposition, there may be a great deal of bone destruction before detectable roentgen changes occur, and as a rule the lesion is not recognized until there is cortical penetration. Indeed, it may be necessary to alter the exposure technique or to obtain oblique and other views of the opposite extremity for comparison in order to demonstrate the presence of bone destruction.

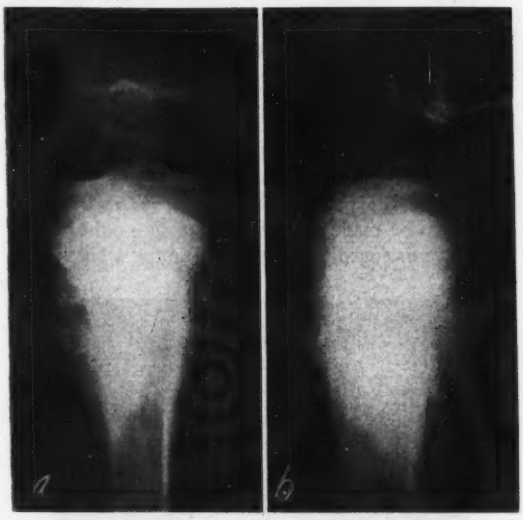

Fig. 4a. Anteroposterior view of the knee showing formation of tumor bone within the metaphysis and within the soft tissue mass, "sun-ray" spicules laterally, and failure of the tumor to penetrate the incompletely fused epiphyseal plate. (Case 14.)

b. Lateral view of the knee in the same patient.

After perforation of the cortex the periosteum is lifted, and the tumor dissects beneath this layer proximally and distally. The cambium layer of the periosteum responds to this injury by proliferation of new bone parallel to the shaft in an effort to strengthen its longitudinal support; this periosteal new bone formation is seen as opaque, sometimes laminated striations at the extremities of the tumor which gradually merge with the unaltered cortex. The elevated periosteum and adjacent longitudinally directed new bone at the extremities of the tumor form, with the shaft, the so-called Codman's reactive triangle[18] (fig. 3 and 6). For a time the periosteum contains the tumor, but if tumor growth continues, this layer is eventually perforated in numerous places, freeing the tumor to invade the soft tissues. Roentgenographically a soft tissue mass is manifest, and because the cells comprising the tumor have osteogenic potentialities, irregular areas of new bone are seen throughout the tumor (tumor bone), both within the soft tissue mass and within the invaded area of the parent bone (fig. 4). It is the frequent arrangement of this tumor bone perpendicular to the shaft of the bone of origin which produces the often described "sun ray" spicules[1, 15, 18] (fig. 3 and 4). It is to be emphasized, however, that bone spicules perpendicular to the shaft are seen in other tumors and non-neoplastic bone diseases, such as Ewing's tumor and ossifying hematomas, although in these other diseases it is periosteal new bone and not tumor bone which produces this finding.[4, 18, 19] Ossification proceeds toward the periphery of the tumor, and the new bone is arranged to support the tumor mass, not the old bone from which it springs.[20] If the tumor has great osteogenic abilities, intense sclerosis in the medullary canal and massive new bone formation within the tumor may be prominent features (fig. 5). In tumors which are chiefly osteolytic the most outstanding roentgen finding may be a large soft tissue mass which has swept away the end of the bone with little or no evidence of periosteal reaction or new bone formation (fig. 6).

Roentgenographically, osteoblastic osteogenic sarcoma may show only thickened cortex, with obliteration of the normal cortical markings and narrowing of the medullary canal in its early stages. Not uncommonly an irregular area of increased density will be the first roentgen evidence of the presence of a tumor.

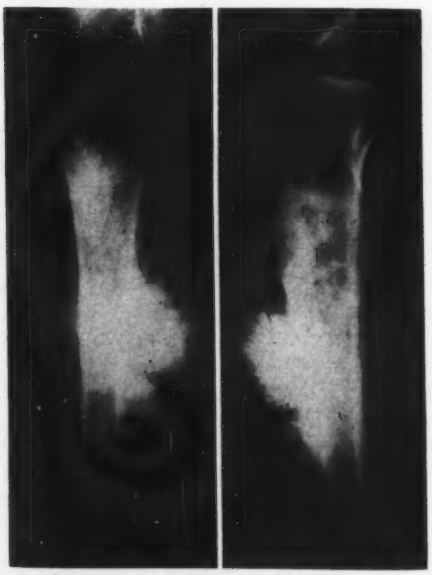

Fig. 5. Anteroposterior and lateral views of the proximal tibia showing massive sclerotic new bone (tumor bone) formation within the shaft and within the soft tissue mass. (Case 5.)

In the typical case, medullary spread ordinarily occurs simultaneously, and it is important to emphasize that the tumor usually extends for a considerably longer distance in the medullary canal than the radiographic appearance would suggest.

Cartilage acts as a barrier to tumor spread, and consequently the malignant progression is usually halted at the epiphyseal plate, leaving the epiphysis uninvolved. This forms one of the striking roentgen

Fig. 6. Largely osteolytic lesion in the proximal humeral metaphysis with large adjacent soft tissue mass. Pathological fracture has occurred. Codman's reactive triangles are seen at the distal extremity of the lesion. (Case 8.)

features of osteogenic sarcoma (fig. 3 and 4). Once epiphyseal fusion has occurred, however, the tumor rapidly invades and destroys the epiphysis. The articular cartilage remains as an effective barrier, however, and joint involvement, which is rarely seen, occurs almost always as a result of soft tissue extension of the tumor with invasion and destruction of the joint capsule.

If weight bearing continues, the possibility of pathological fracture is to be considered, and its roentgen appearance differs from that ordinarily seen only in that the fracture occurs through invaded and partially destroyed bone[21] (fig. 7). Indeed, callus may form and healing proceed while the tumor continues its destructive course.

Metastatic spread occurs mainly by the hematogenous route. The commonest metastatic site is the lungs, and radiographic evidence of pulmonary spread usually precedes symptoms caused by lung metastases (fig. 8). Other bones, especially the skull, femur, and tibia, have been described as the sites of secondary lesions.[12]

Primary chondrosarcoma (that is, arising *de novo*), the other important malignant bone tumor with osteogenic and chondrogenic potentialities, cannot often be distinguished radiographically from osteogenic sarcoma. The tumor generally grows more slowly, produces a larger soft tissue mass, and characteristically contains blotchy areas of calcification and ossification within the tumor mass. Pathological fracture is rare.

Secondary chondrosarcoma (that is, arising in a preexisting benign chondroma) is infrequently seen in children.

A list of differential possibilities necessarily includes a large variety of other diseases and lesions. The most important conditions from which osteogenic sarcoma must be differentiated are noted in table 1.

Misdiagnoses are not uncommon. Of the cases herein reported, definitive treatment was delayed in 5 because of inaccurate diagnoses; 2 were diagnosed as simple fracture, 1 as abscess, 1 as inflammatory arthritis, and 1 as rheumatic fever.

A histological diagnosis rarely can be made with accuracy from the roentgen appearance of the tumor alone. If a suspicious lesion can be identified as a malignant tumor of bone and if it can be classified as primary or metastatic, then we have accomplished all that can be reasonably expected from the radiographic analysis of the patient's lesion. An informed guess often can be made as to the histology of the tumor, but since osteogenic sarcoma can mimic other lesions

Fig. 7. Oblique view of the distal femur showing a large osteolytic defect on the posteromedial aspect of the distal femoral metaphysis through which a spiral pathological fracture has occurred. (Case 10.)

so closely, other means must be employed if a more definite pathological diagnosis is necessary. The value of the radiologist's diagnostic opinion is greatly enhanced by access to accurate knowledge of the patient's history, symptomatology, and physical findings, and cooperation on the part of the referring clinician in providing this information often will be rewarded by earlier establishment of the nature of the patient's disease with the advantage of earlier well planned therapy.

TABLE 1.—*Conditions from Which Osteogenic Sarcoma Must Be Differentiated.*

Inflammations
Pyogenic osteomyelitis
Syphilitic osteomyelitis
Tuberculous osteomyelitis
Post-traumatic conditions
Irregular and excessive callus following fracture
Calcifying and ossifying subperiosteal hematomas
Myositis ossificans
Bone-eroding aneurysms following wounds
Benign tumors and cysts
Other malignant tumors
Ewing's sarcoma
Metastatic malignant disease, especially neuroblastoma
Reticulum cell sarcoma
Malignant giant cell tumor
Miscellaneous conditions
Ossifying bone infarcts (sickle cell anemia, especially)
Isolated cortical defects (Caffey)
Infantile cortical hyperostosis
Osteochondrosis (aseptic necrosis)
Melorheostosis

BIOPSY

The use of routine biopsy is criticized by those who maintain that clinical and roentgen impression is enough and that biopsy should be reserved for those cases concerning which there is some indecision; but in the knowledge that there are other lesions which radiographically and clinically can closely resemble osteogenic sarcoma, it would seem hazardous to institute radical treatment without pathologic substantiation. It must be borne in mind, of course, that at certain stages microscopic sections of callus, organizing hemorrhage and myositis ossificans, for instance, may so closely resemble sarcoma that it is impossible to state definitely that the lesion represents a benign process. That there can occasionally be confusion merely points up the importance of using every available diagnostic device of which biopsy is one.

TREATMENT

Emphasis has been placed upon the importance of early recognition of osteogenic sarcoma. Now it must be noted that statistically it is difficult to prove that treatment in the so-called early stages appreciably extends the survival period. It is more than likely a fateful combination of factors and features in the individual case rather than the aggressiveness of the surgeon which determines the course.

Some of the factors to be considered are the age of the patient, the duration of symptoms, the location of the tumor with reference to the trunk, the radiologic appearance and orientation, and the pathologic type and grade. The relationship of each of these variables to the survival differs from report to report. Coley[7]

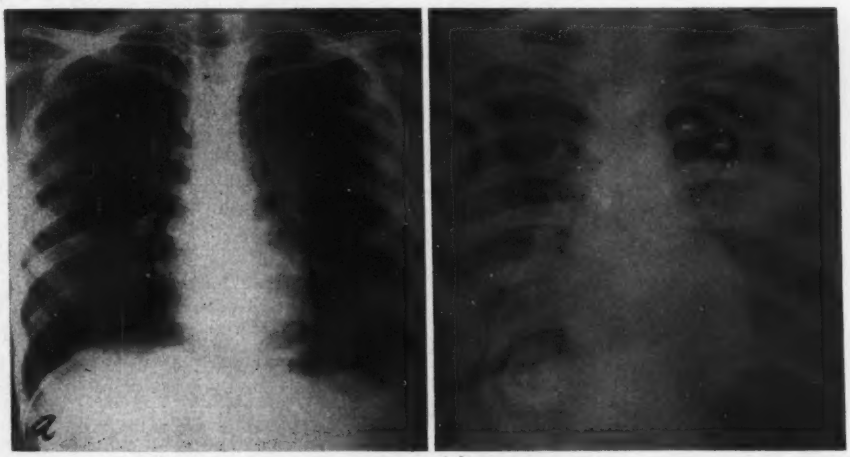

Fig. 8a. Normal chest roentgenogram made on July 5, 1955. (Case 14.)

b. Film of the same patient made November 7, 1955, showing a single large metastasis in the left mid-lung field and a smaller metastatic lesion in the right first anterior interspace.

has expressed the feeling that the most reliable index to the rapidity of growth and metastatic tendency is the microscopic appearance; but he admits that there are exceptions.

We must assume regardless of the aforementioned factors that very early in the growth of the tumor, cancer cells circulate freely and that by the time the lesion is recognized there are many such cells in the general circulation. These cells ultimately will do one of three things: they will die in the circulation, they will implant and die, or they will implant and grow. In the consideration of treatment, thus, it is not so much the tumor itself which concerns us—we can usually remove that—as the fate of the circulating cancer cells.

There is agreement that ablation of the tumor is the treatment of choice in almost all instances, and there is even fair agreement as to the amputation site. Amputation level is usually through the next proximal bone to that involved or at the proximal end of femora or humeri involved distally, disarticulation being reserved for more proximal involvement of humerus and femur. However, there is not agreement as to the proper time for surgical removal or as to whether or not there should be companion treatment directed at control of metastases.

In 1940, Ferguson,[10] having analyzed 400 cases of osteosarcomas of all types from the American Registry, reported that in those patients in whom amputation had been performed less than 6 months from onset of symptoms the 5 year survival rate was 5 per cent, whereas those cases similarly treated after a 6 month history showed a 5 year survival rate of 34 per cent. He noted also the early appearance of metastases following early amputation and theorized that the late amputations were done in a quiet period when the tumor was more stabile and conditions less favorable for metastases. The influence of this report is still evident in more recent publications.

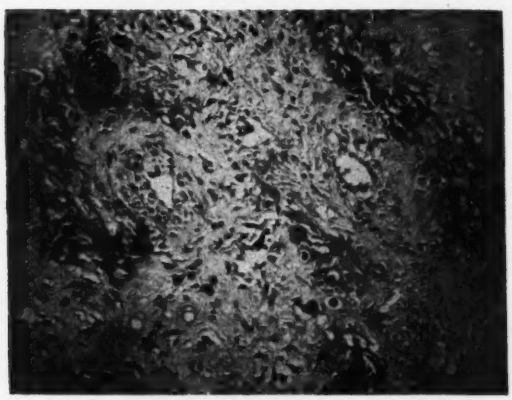

Fig. 9. Calcifying osteoid or so-called tumor bone is a prominent feature of this section. There is moderate pleomorphism in a relatively compact matrix. The spindle character of the basic cell is still apparent. Some of the cell patches suggest cartilage.

Certainly the most common practice is that of ablation of the tumor as soon as it is recognized. There are some who strongly favor preoperative radiation and some who feel there are no good evidences of its efficacy. It should be true that the tumors which are slow growing will likely be diagnosed at a time more remote from onset than will those which are fast growing and that the survival period will have an inverse relationship to the tumor's aggressiveness independent of amputation time. This reasoning is the basis for objections raised to the policy of delayed amputation.

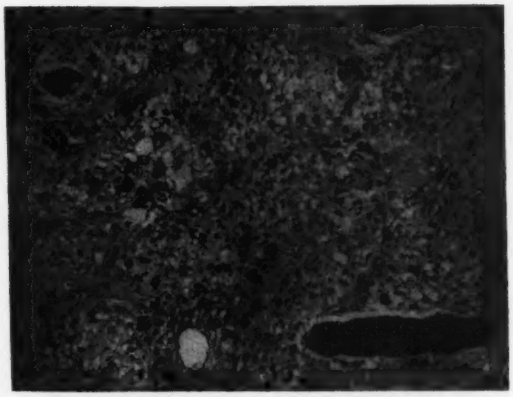

Fig. 10. Mere spicules of sclerotic bone remain in this bed of bizarre cellularity where strands of osteoid are yet uncalcified. This is grade IV osteogenic sarcoma.

There are, nevertheless, indications from responsible sources[2, 11] that amputation following a period of irradiation yields a greater number of 5 year survivals than amputation without radiation therapy. The amount of irradiation and the method of administration vary from institution to institution, but in general there are two approaches: one aims at short term therapy with lethal doses of roentgen ray; the other aims at maturation or stabilization of the tumor with relatively small doses given over a more extended period. Dosage with the more radical technique varies from 8,000 to 12,000 r given in divided doses over a period of 1 week to 1 month. This is followed immediately with amputation. With the more conservative technique the dosage varies from 3,000 to 6,000 r administered in small doses over a period of 2 months or more with tumor response and the patient's condition governing the time of amputation.

It is known that some tumors of the osteolytic type, with proper irradiation, will become more sclerotic or osteoblastic, and this response is thought to indicate maturation or differentiation. The pa-

tient's general condition may improve with conservative treatment, there being a decrease in sedimentation rate and temperature, an increase in appetite and even weight gain. Amputation ideally follows a quiescent period of approximately 2 months during which there has been no temperature elevation, no pain, no increase in size, and no sudden roentgen change.[11]

Four of our own cases received roentgen therapy prior to amputation. Dosage varied from 5,000 r delivered in 7 days to 11,500 r delivered in a 12 day period. The initial dose was delivered in each case immediately following removal of tissue for biopsy while the tourniquet was still in position. Amputation in each case immediately followed the period of irradiation. Of this group there is one 5 year survival. One other case received palliative roentgen therapy only with a total dose of 3,000 r delivered in 15 days. This experience is too small for conclusions. The one survival might have been expected anyway because of the long relatively undramatic history.

Roentgen therapy alone is indicated if the tumor is so situated that surgical ablation is impossible, if the tumor is so far advanced that amputation is impractical, or if the patient refuses amputation.

Sir Stanford Cade,[5] in a recent publication, strengthened the position of roentgen therapy in osteogenic sarcoma with a report of a series of 133 histologically proven cases treated by radiotherapy either with radium or with supervoltage roentgen rays. In most of the cases amputation could be postponed 2 to 18 months and in some of the cases response was so satisfactory that no amputation was performed.

If roentgen therapy is actually effective in giving a better 5 year survival rate, it must be assumed that the effect is not just upon the tumor itself but upon the potentially metastatic cells. Local therapy conceivably may control metastases in three ways: by decreasing the number of viable cancer cells released from the tumor to the circulation, by altering the cells already in circulation so as to make their growth and implantation less likely, by making the environment unfavorable for implantation or growth of the cells, or by a combination of these possibilities. The local effects of irradiation are fairly well understood. Though osteosarcomas as a group are considered radioresistant, there is inhibition of mitoses, a decrease in the blood supply, an increase in the number of fibroblasts, gradual ossification of the neoplasm, and often actual diminution in size. The general effects, on the other hand are less well understood, but it is the consensus that in tumor therapy as in roentgen treatment of inflammatory conditions there are local changes only. Yet there is depression of leukocyte count and there is often a period of nausea and vomiting known simply as radiation sickness; and as noted previously, with conservative roentgen therapy there may be substantial improvement in the patient's general state. Though these changes are secondary to the changes at the tumor site they also reflect alteration of the general environment which conceivably could be a factor in the control of metastases.

There are other measures or adjunct therapies aimed at control of metastases. Since there is no agreement in this area, it will suffice to mention the possibilities.

The lung is the most consistent site of metastatic growth. The use of prophylactic doses of roentgen ray to the chest has had sporadic popularity and currently is practiced in certain areas with conviction, though generally it seems to have few advocates.

Nitrogen mustard has been shown experimentally by Cruz and others[9] to be moderately effective in preventing the "take" of carcinosarcoma cells when injected in the portal vein of the rat. This type of adjuvant therapy is being employed by these investigators at a clinical level for control of metastases in other than bone tumors. Though no report is available at this date of a series of cases of bone sarcomas treated with this adjunct, Banks[2] has stated that tumor chemotherapy, particularly of the nitrogen mustard group, seems to help.

Coley's bacterial toxins enjoyed a long popularity, but the use of them has now been largely abandoned.

ANALYSIS OF CASES

Table 2 is a tabulation of the consecutive cases of osteogenic sarcoma seen at John Sealy Hospital from 1946 through 1956. Two cases only were included which were not confirmed histologically. These were diagnosed by clinical and roentgen findings and were considered too far advanced for surgical treatment or even risk of biopsy. It should be noted that in this period there have been but 3 histologically proven cases in adults. The other 15 cases were in patients ranging from 6 to 17 years of age. Only the 15 cases of children and adolescents are included in the table. Each of these cases has terminated or the patient has survived 5 years or longer. Death was due to pulmonary metastases in all but 2 cases. In these there were metastases to spinal cord and brain which were more aggressive than those in the lungs.

Reference to the table has been made earlier regarding site, presenting symptoms, and radiation therapy. Though the series is small it is of interest to check various relationships.

For instance, it can be ascertained readily that survival time is better in the cases with involvement of proximal tibia than in those with involvement of distal femur. It can be shown further that the 5 cases, all in femur or tibia, which received preoperative roentgen therapy have a better post-treatment

survival than the 5 cases in the lower extremity which were treated with amputation alone.

On the other hand, if we analyze the 3 cases of 5 year survival, we find that 1 had a tumor of the clavicle and that 2 had involvement of the proximal tibia. Of the 2 patients with tibial tumor, 1 had a long history and had pre-amputation roentgen therapy, whereas the other had a short history and no preoperative roentgen therapy. The one who received no roentgen therapy had a histologic grading of IV.

In this series at least a protracted history does not indicate that the post-treatment course will be long nor a short history that it will be short. Since pathologic grading was not available on every case, it was not included.

Thus, no definite conclusions can be drawn from this material as regards factors determining survival. The information merely suggests that preoperative roentgen therapy was effective in prolonging life in the 5 cases so treated, and that more distally situated tumors have a long survival regardless of treatment. It is true, however, that small consecutive series such as this, though not significant in themselves, can contribute in large scale statistics so that the reporting or registration of such series should be encouraged.

CONCLUSIONS

Osteogenic sarcoma is presented as a catastrophic childhood disease the early recognition of which, because of its insidious nature, is unlikely. The roentgenogram, properly executed, is the single most important aid to recognition; and cooperation among surgeon, radiologist, and pathologist must be of the highest degree.

No one method of management has been so successful in increasing survival time in cases of osteogenic sarcoma that it has gained wide acceptance. As in other similar situations, the current great variety of opinions on the subject of treatment indicates the general lack of security. The present trend is again toward the consistent use of preoperative roentgen therapy. Since the control of metastases is the one essential to increasing the survival there are likewise renewed efforts toward a better comprehension of this problem.

The small series of cases presented substantiates most of the statistics thus far recorded. Since the problem of osteogenic sarcoma is yet unsolved, it is an obligation of those who see these cases in fair numbers accurately to report or register them in order that numerically valid statistics may serve eventually as a basis for standard management.

REFERENCES

1. Ackerman, L. V., and del Regato, J. A.: Cancer: Diagnosis, Treatment, and Prognosis, St. Louis, C. V. Mosby Co., 1954, pp. 1025-1069.
2. Banks, H. H.: Personal communication.
3. Bergin, J. H. E.: Analysis of Radiological Findings in 20 Cases of Osteoblastic Osteogenic Sarcoma, Brit. J. Radiol. 26:628-637 (Dec.) 1953.
4. Brailsford, J. F.: Ossifying Haematomata and Other Simple Lesions Mistaken for Sarcomata; Responsibility of Biopsy, Brit. J. Radiol. 21:157-170 (April) 1948.
5. Cade, S.: Osteogenic Sarcoma, Study Based on 133 Patients, J. R. Coll. Surgeons Edinburgh 1:79-111 (Dec.) 1955.
6. Coley, B. L.: Neoplasms of Bone and Related Conditions: Their Etiology, Pathogenesis, Diagnosis, and Treatment, New York, Paul B. Hoeber, Inc., 1949, ch. 21, pp. 236-281.
7. Coley, B. L., and Harrold, C. C., Jr.: Analysis of 59 Cases of Osteogenic Sarcoma with Survival for 5 Years or More, J. Bone & Joint Surg. 32-A:307-310 (April) 1950.
8. Coventry, M. B., and Dahlin, D. C.: Osteogenic Sarcoma; Critical Analysis of 430 Cases, J. Bone & Joint Surg. 39-A:741-758 (July) 1957.
9. Cruz, E. P.; McDonald, G. O.; and Cole, W. H.: Prophylactic Treatment of Cancer; Use of Chemotherapeutic Agents to Prevent Tumor Metastasis, Surgery 40:291-296 (Aug.) 1956.
10. Ferguson, A. B.: Treatment of Osteogenic Sarcoma, J. Bone & Joint Surg. 22:916-922 (Oct.) 1940.
11. Ferguson, A. B., Jr.: Personal communication.
12. Finlayson, R.: Osteogenic Sarcoma with Multiple Skeletal Tumors, J. Path. & Bact. 66:223-229 (July) 1953.
13. Hatcher, C. H.: Development of Sarcoma in Bone Subjected to Roentgen or Radium Irradiation, J. Bone & Joint Surg. 27:179-195 (April) 1945.
14. Higinbotham, N. L., and Coley, B. L.: Methods and Effects of

TABLE 2.—*Consecutive Cases of Osteogenic Sarcoma Occurring in Persons Less Than 20 Years of Age Diagnosed at John Sealy Hospital from 1946 Through 1956.*

Case	Age (yr.)	Sex	Race	Site	Treatment: Radiation	Treatment: Amputation	Onset of Symptoms	Presenting Symptoms	Duration of Symptoms	Survival: From Onset	Survival: From Treatment
1	16	M	W	Dist. fem.	No	High thigh	Aug., 1946	Swelling	2 mo.	6 mo.	4 mo.
2	16	F	C	Clavicle	No	Excision	Aug., 1949	Swelling	1 mo.	7 yr.	7 yr.*
3	16	F	W	Dist. fem.	No	High thigh	Apr., 1948	Swelling	2 mo.	11 mo.	9 mo.
4	10	F	C	Dist. fem.	7,500 r	Disartic.	Jan., 1949	Limp	4 mo.	2 yr.	1 yr. 9 mo.
5	17	F	W	Prox. tib.	11,500 r	Mid thigh	June, 1949	Swelling	2 yr.	3 yr.	1 yr.
6	13	F	C	Prox. tib.	10,620 r	Disartic.	Mar., 1950	Swelling	1 wk.	1 yr. 4 mo.	1 yr. 3 mo.
7	15	M	W	Prox. tib.	5,000 r	High thigh	Apr., 1950	Swelling	11 mo.	8 yr.	7 yr.*
8	10	M	C	Prox. hum.	No	Foreqtr.	June, 1950	Fracture	1 mo.	4 mo.	3 mo.
9	16	M	W	Dist. fem.	12,400 r	Disartic.	June, 1950	Swelling	2 wk.	1 yr. 5 mo.	1 yr. 5 mo.
10	6	M	C	Dist. fem.	No	High thigh	Jan., 1952	Fracture	2 days	5 mo.	4 mo.
11	12	M	W	Prox. tib.	No	Mid thigh	May, 1952	Pain	1 mo.	5 yr.	5 yr.*
12	12	F	W	Prox. fem.	3,000 r	No	Aug., 1953	Pain	8 mo.	9 mo.	1 mo.
13	15	F	W	Prox. hum.	No	Foreqtr.	June, 1953	Pain	3 mo.	1 yr. 9 mo.	1 yr. 6 mo.
14	13	F	W	Prox. tib.	No	Mid thigh	Jan., 1955	Swelling	6 mo.	1 yr. 5 mo.	11 mo.
15	16	M	C	Dist. fem.	No	No	Mar., 1956	Swelling	2 mo.	3 mo.	No therapy

*Patients currently surviving without metastases.

Preoperative Irradiation in Treatment of Osteogenic Sarcoma, Am. J. Roentgenol. 47:902-908 (June) 1942.
15. Jaffe, H. L.: Osteogenic Sarcoma of Bone, Clinical Orthopedics, Philadelphia, J. B. Lippincott and Company, 1956, ch. 7, pp. 27-39.
16. Janes, J. M.; Higgins, G. M.; and Herrick, J. F.: Beryllium-Induced Osteogenic Sarcoma in Rabbits, J. Bone Surg. Brit. 36-B:543-552 (Nov.) 1954.
17. Lichtenstein, L.: Bone Tumors, St. Louis, C. V. Mosby Co., 1952, ch. 14, pp. 158-179.
18. Luck, J. V.: Correlation of Roentgenogram and Pathological Changes in Ossifying and Chondrifying Primary Osteogenic Neoplasms, Radiology 40:253-275 (March) 1943.
19. Pendergrass, E. P.; Lafferty, J. O.; and Horn, R. C., Jr.: Osteogenic Sarcoma and Chondrosarcoma with Special Reference to Roentgen Diagnosis, Am. J. Roentgenol. 54:234-256 (Sept.) 1945.
20. Phemister, D. B.: Ossification in Bone Sarcoma, Radiology 7:17-23 (July) 1926.
21. Singleton, A. C.: Sources of Error in Radiological Interpretation in Tumors of Bone, Radiology 29:83-88 (July) 1937.

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Genitourinary Neoplasms In Infancy And Childhood

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WITH the recent tremendous reduction in mortality from infectious and contagious diseases in the pediatric age group, there has been a subtended dramatization of the prevalence and importance of cancer in this same group. As the antibiotics have diminished the severity of infectious diseases and obviated many deleterious sequelae, the lack of therapeutic success in carcinoma has become all too evident. Certain maxims obviously deserve repetition in view of the results unearthed by even a cursory survey of the mortality statistics. The first of these is the statement that every solid mass in an infant or child is a malignancy until proven otherwise. In young children bladder and kidney malignancies account for many more deaths than poliomyelitis, whooping cough, syphilis, scarlet fever, and measles combined. It is significant that at most children's hospitals malignancies account for more than 6 per cent of admissions; and correlatively the highest cancer death rate occurs in the younger children, ages 1 to 5 years. Two further generalizations are important, that neoplasms in the young grow so rapidly a lingering death is rare and that most genitourinary cancers are embryonal in type. The high degree of malignancy characteristic of genitourinary tract tumors in children must enforce professional concern and engender publicity commensurate with the seriousness of the problem.

TUMORS OF KIDNEY

Renal neoplasms may be separated into those of the parenchyma and those of the renal pelvis. Tumors of the renal parenchyma may be benign or malignant. Benign tumors include adenoma, fibroma, lipoma, hemangioma, and cysts, either of the polycystic or solitary type. Since benign neoplasms usually are small, asymptomatic, and most frequently found at autopsy and in view of the fact that assurance as to their benignity requires histologic verification, a differential diagnosis will be included in the discussion of Wilms' tumor. Of the malignant tumors, there are

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In young children bladder and kidney malignancies account for more deaths than poliomyelitis, whooping cough, syphilis, scarlet fever, and measles combined. Neoplasms in the young grow rapidly and most genitourinary cancers are embryonal. Immediate and complete urologic study following any suggestive urinary tract symptomatology may result in discovery of renal tumors when they are subject to cure.

two main types, the carcinoma or hypernephroma, rare in childhood, and the embryoma or Wilms' tumor. Carcinoma will be discussed with the Wilms' tumor.

Tumors of the renal pelvis in children are most commonly secondary to parenchymal or peripelvic growth, yet a few primary epithelial growths have been reported. Of the primary tumors papillomas and angiomas outnumber malignant epitheliomas, which have been reported only occasionally. A few sarcomas have been seen and an occasional case of leukoplakia, but the rarity of these lesions is such

that no symptoms or signs may be delineated as being peculiar to such tumors in children. The clinical picture and the diagnosis in these instances ostensibly does not vary from renal pelvic tumors in adults. Hematuria, flank pain, colic, and fever have been notated, and urographic filling defects in the renal pelvis are promulgative of a space-occupying lesion in the collecting system. Delay in the prompt therapeusis of such tumors may be occasioned by their statistical rarity, but immediate nephro-ureterectomy must follow exposure and biopsy, should urographic defects be constant.

Renal pelvic involvement by parenchymal neoplasm is the more usual type of pelvic tumor, and here again symptoms of obstruction due to tumor and blood clot bring the situation to light. It is usually obvious that the primary problem is a parenchymal neoplasm. When there is involvement of the renal pelvis or ureter by parenchymal neoplasm, complete nephro-ureterectomy must be done in contradistinction to nephrectomy for uncomplicated parenchymal tumor.

Secondary renal tumors such as the leukemic variety may allow almost total replacement of the kidney and produce a very large renal mass with rapidly deteriorating function. One such case recently under our care was characteristic in that the kidney was markedly enlarged, yet the collecting system architecturally was well within normal limits; functionally, the kidney had deteriorated severely. The diagnosis in such instances depends upon studies of the blood and bone marrow, but the characteristic sign of large renal mass with a normal appearing collecting system is indicative.

PERIRENAL TUMORS

Many tumors occur in close proximity to the kidney in children, including benign lipomas, fibromas, and mixomas and malignancies which are frequently derivatives of totipotent cells of germinal epithelium of the embryonic germinal ridge. Such tumors are rare and most frequently present as abdominal masses or perhaps in metastasis, and occasionally in the production of symptoms of urinary obstruction. Excretory and retrograde urography will delineate the obstructive effects of such extrarenal tumors, and by addending presacral carbon dioxide insufflation and translumbar arteriography, a separation may be made between the tumors and the kidneys themselves. In the surgical treatment of such lesions it is unwise to temporize with either an involved kidney or a severely damaged one, and the kidney should be removed with the tumor.

URETERAL TUMORS

Primary ureteral tumors are sufficiently rare in general to warrant publication of any report of a case, and malignant ureteral tumors are of such rarity that they must be considered almost nonexistent in the pediatric age group. We have had occasion to excise a polypoid, valvelike structure in a 17 year old boy; in all probability the majority of ureteral tumors in the young consist primarily of such mucosal hypertrophy. Ureteral tumors differ symptomatically in no way from those seen in adults, and the clinical signs center about the obstruction produced. Such obstructive findings are usually clearly delineated by urography.

BLADDER NEOPLASIA

Bladder tumors are rare in infants and children, and the malignant ones seem to be most frequently sarcomatous in nature. Polyps and papillomas have been fairly frequently reported and are usually construed as benign tumors. There is no authenticated case of true vesical carcinoma in the very young. The greater proportion of malignant bladder tumors are of mesodermal origin, and although subjected to an extremely variegated histologic classification, the greatest number seem to be of rhabdomyosarcomatous type, the sarcoma botryoides. Since most tumors are sarcomatous it is not unusual that they are found primarily in the trigonal region reflecting their mesodermal genesis. These tumors grow luxuriantly, and often it is difficult to ascertain their exact derivative location. Further confusion stems from the frequent projection into the bladder of prostatic growths and other perivesical tumor invasion. Morse and Jarman[5] in an analysis of 20 cases of sarcoma botryoides brought out the point that difficulty and delay in diagnosis occurs when, owing to the luxuriant growth of the polypoid structures, only a superficial biopsy specimen may be obtained and a benign diagnosis returned. Symptoms are similar to those seen in adult vesical carcinomas: frequency, dysuria, urgency, incontinence, and frequently pyuria and hematuria. Obstruction in the upper tracts occurs due to exuberant tumor growth and its derivation from the trigonal and periureteral areas. Vesical symptoms are soon supervened by upper tract infection and hydronephrosis; uremia is not infrequent. Insistence upon thorough urologic evaluation is necessary in any functional disruption of normal micturition and most assuredly in the presence of pyuria and hematuria. All too frequently the diagnosis is entertained subsequent to protrusion of tumor tissue at the meatus in the female or with the onset of urinary retention in the male. Evaluation includes urography for upper tract study and cystoscopy with adequate biopsy. Polypoid vesical

masses with a histologically benign appearance should be suspect of malignancy until completely disproven. Open bladder biopsy may be necessary in some instances.

The treatment of vesical neoplasms in the young undoubtedly should be more radical than has been proposed in the past. Polyps and papillomas may be easily treated by the endoscopic route and followed by careful and frequent reevaluation for recurrence. In dealing with the more malignant or extensive types of tumor one must consider the mortality statistics. More than 90 per cent of patients have died relatively soon. Significantly, among the survivors the histologic diagnosis was of a more benign type of tumor. It appears that a combination of delay in diagnosis, inadequate biopsy, and temporizing attempts at fulguration has been responsible for the infamous lack of success in the therapy of vesical malignancies. An improvement in survival rates may be achieved with the newer supervoltage radiation techniques, but until a clear-cut superiority is demonstrable we must continue to resort to surgical ablation of the tumor. These patients should be afforded earlier and more widespread excision of tumor-bearing tissue. When the diagnosis has been made, immediate preparation of these children for surgery should be carried out and be vigorous enough to allow for an extensive procedure. There are those who believe in immediate cystectomy yet hesitate to afford any type of urinary diversion other than cutaneous ureterostomy with the purpose in mind of lessening the surgical severity. In our hands it has been preferable to do a complete procedure and afford the patient definitive urinary diversion at the time of the ablation of the carcinoma. The procedures which we carry out involve extensive vesical and bowel surgery yet have been innocuous in respect to the postoperative course in these children. We believe that not only should radical cystectomy, prostatectomy, seminal vesiculectomy, and lymphadenectomy be performed but that definitive urinary diversion should be done at the same time. Diversion may consist of ureterosigmoid anastomosis with or without colostomy, the Lowsley procedure, or the transplantation of the ureters to an isolated segment of ileum. A combination of early radical surgery and adjunctive high voltage radiation may prove to be a more productive approach to the very discouraging problem of bladder tumors in children.

URETHRAL AND GENITAL TUMORS

Tumors of the urethra are fairly common in children. Small polyps often rise in the posterior urethra of young boys and occur with fair frequency in girls; they are usually considered to be benign lesions. Thorough evaluation of the entire urinary tract must be carried out to preclude their derivation from a more proximal urothelial tumor.

Penile and scrotal tumors are exceedingly rare in children. Suspicion thereof is often precipitated by the results of trauma.

TESTICULAR NEOPLASMS

Testicular tumors in children are uncommon yet have an interesting age incidence and histologic type. The vast majority are malignant and occur almost exclusively in the first 2 years of life. Histologically these tumors correspond more closely to the totipotent primordial sex cell than in the adult. Seminoma can almost be excluded in this discussion owing to its rarity. Most tumors can be classified as mixed tumors, embryonal carcinoma being frequent. These tumors are highly anaplastic and metastasize early. Usually patients are brought to diagnosis by symptoms referable to metastasis rather than to the primary tumor. The occurrence of hydrocele early sometimes may bring the testicular tumor to light prior to the occurrence of metastasis. Any scrotal mass should be carefully evaluated and persistently and frequently followed. Hernia, idiopathic hydrocele, and scrotal trauma are more frequent offenders, yet in view of the serious nature of a possible tumor it is justifiable to aspirate a hydrocele or explore a scrotum to make certain a testicular tumor does not lie within. Any unexplained enlargement or irregularity of a testicle should be immediately suspect, and subsequent to general physical evaluation, explored. The Aschheim-Zondek test should be utilized frequently because the majority of these tumors are of embryonal nature, capable of provoking the elaboration of chorionic gonadotropin. Tuberculosis and syphilis are sufficiently rare and accompanied by other signs of specific derivation as to be easily ruled out.

Testicular tumor in the young has generally a poor prognosis since the majority present with extensive metastases. Treatment in the pediatric age group differs in no way from that afforded adults. Even in the presence of metastasis immediate orchiectomy and intensive postoperative radiation has been of great palliative value. If metastasis is not present, immediate orchiectomy with opening of the retroperitoneal space and removal of the entire cord and such nodal tissues as are present is undertaken; postoperative radiation is employed.

Epididymal tumors are rare; of these perhaps the most frequent is the fibro-adenoma or adenomatoid tumor. These are not malignant, yet are frequently removed to obtain histologic verification.

PROSTATIC SARCOMA

Tumors of the prostate in the young are extremely rare, exceptionally malignant, and almost exclusively sarcomatous. In Lowsley's[4] review prostatic sarcoma was most common in the first decade of life and was seen to occur in infants as early as 4 months of age. The symptoms presented are most commonly those of lower urinary tract obstruction with infection and uremia. Prostatic sarcoma grows so rapidly and invades so widely that by the time symptoms occur rectal examination reveals a bony pelvis filled completely with a bulky indurated infiltrating mass of tissue. The rectal digital findings are characteristic and presage an early doom. It is difficult by rectal examination to determine that the prostate is the definite point of initial derivation, but the fact that the entire pelvis is so firmly infiltrated is suggestive. The diagnosis is based upon cystoscopy, cystography, and urethrography, with addended biopsy. The treatment, where surgical excision seems feasible, is one of radical cystectomy, prostatectomy, and seminal vesiculectomy with a type of ureteral transplantation commensurate with the architecture and function of the upper urinary tract. Again, it is desirable to carry out this procedure at one sitting. Prognosis has in general been poor, and the results of surgery and radiation have not prompted any hard and fast schedule of treatment.

WILMS' TUMOR

Of malignant abdominal tumors in childhood the Wilms' tumor, or renal embryoma, in the light of recent statistical analysis undoubtedly is the most common. Adrenal neuroblastoma has been relegated to second place. In the literature an inspiringly variegated histologic terminology was ascribed to the renal embryoma, yet as with testicular tumors a more succinct categorization has arisen from the realization that the multifarious histologic pictures are the result of tumor derivation from a primitive cell type which is totipotent in nature. It appears that these tumors originate at the blastema or nephrotome stage in only rare instances and most probably derive from earlier anlage, before the urogenital ridge has formed the nephrotome.

The period of greatest prevalence of Wilms' tumor is around the third year of age, and the greater number appear between 1 and 5. Since a goodly number of Wilms' tumors have been reported in adults it would seem that an embryonic cell rest may persist for long periods prior to its malignant activation. This may account for the occasional bilaterality of the tumor, and also may be responsible for late recurrence.

There seems to be no disparity of incidence between the sexes, nor is one kidney more susceptible than the other. There has been some indication that the tumor may be more prevalent in the white than the Negro. Bilateral involvement has not been particularly uncommon.

It is unfortunate that the first clinical sign of Wilms' tumor usually is an inescapably visible protuberance of the child's abdomen. Only in the very young, during the period of frequent maternal handling and medical scrutiny of the infant, are smaller tumors discovered. Occasionally should tumor necrosis or hemorrhage occur, symptoms accompanying a rapidly enlarging mass make the onset more dramatic.

Grossly, the tumor is initially fairly smooth but gradually becomes irregular. Very large tumors will displace other abdominal organs and symptoms can occur due to such displacement. There is a greater tendency for Wilms' tumor to expand anteriorly rather than posteriorly as is seen in neuroblastoma. The neoplasm may seem to be encapsulated on cursory inspection, but this is a very friable, connective tissue structure which offers no barrier to parenchymal invasion. Collecting system invasion is rare and accounts for the relative infrequency of hematuria as an early sign. Often the tumor surface is covered with dilated collateral blood vessels, giving evidence of possible vascular tumor extension.

Grossly the sectioned tumor is grainy, soft, yellowish, and may have areas of necrosis or hemorrhage therein.

Histologically, almost any derivation of mesodermal cell structures may be seen. Cartilage, bone, fat, or muscle sometimes may be seen and often more undifferentiated cells.

Metastasis is clinically evident late in Wilms' tumors in contradistinction to neuroblastoma, and is usually blood borne. The lungs, liver, and brain are most often afflicted, whereas neuroblastoma more frequently may be seen in the bones. Regional node metastasis in renal embryoma is not uncommon. Occasionally vascular extension may completely occlude the vena cava and produce venous obstructive symptoms.

SYMPTOMS OF RENAL EMBRYOMA

The symptomatology referable to Wilms' tumor is not striking considering the usually large size of the tumor when the diagnosis is first suspected. Mass is the most common first sign. Pain is more frequent in the adult Wilms' tumor but occasionally is seen in children, often derived from metastases. Hematuria is uncommon and occurs usually only quite late in the course of the disease. Hypertension has been described as almost constantly concomitant or infrequently so depending upon the series analyzed. In a

review of 59 embryomas Johnson and Marshall[8] found only an 8 per cent incidence of hypertension. Varicocele occasionally can be seen in the presence of venous obstruction. Symptoms relative to displacement of other structures usually are precursors of a rapid downhill course. Albuminuria is fairly frequent, as is urinary infection. Other nonspecific findings relative to neoplasia in general are frequently seen. It is apparent that strides must be made in the earlier discovery of renal tumors in children. Only intensive publicity will increase general awareness of the early clinical signs of embryoma, and thus bring more patients to early diagnosis. Constant emphasis upon the importance and prevalence of renal tumors in the young is necessary. Any abdominal mass in a child must be brought to diagnostic fruition as quickly as possible, and thus a complete urologic survey should be begun immediately. Less indicative diagnostic procedures must await the ruling out of a kidney tumor.

Wilms' tumor is usually movable, fairly firm, and more lobular than nodular. Palpation should be infrequent and gentle. A tendency toward softness may suggest hydronephrosis, which may be concomitant, of course. The texture of neuroblastoma is often more nodular and granular. Conjecture is fruitless, and excretory and retrograde urography should be undertaken immediately. In most instances excretory urograms will outline the tumor and assure one as to the status of the other kidney. Not infrequently, owing to renal functional deterioration or to incomplete filling, retrograde urography will be mandated. Cystoscopy and retrograde studies should not be withheld if any doubt whatsoever exists as to the nature of the problem.

UROGRAPHIC CHARACTERISTICS OF EMBRYOMA

The characteristic roentgen findings are those of displacement of the pelvis and calyces with attenuation of the collecting system sometimes to the point of disruption between various portions, and the production of dilatation from compression by the tumor mass. Often the renal outline will be well visualized and the entire mass clearly delineated. At times no calyceal distortion is seen, but displacement of the kidney may occur as a result of the location of the tumor in one pole or the other. In advanced tumors there may be obliteration of entire segments of the collecting system. In most instances when the diagnosis is not clear from the excretory urogram, retrograde filling will delineate changes characteristic of parenchymal neoplasm. Once the diagnosis of tumor is made, surgical exposure is mandated.

In a differential analysis of abdominal tumor in the child only three entities are commonly considered: hydronephrosis, Wilms' tumor, or neuroblastoma of the adrenal gland. Excretory and retrograde urography done immediately can easily distinguish between these three. Neuroblastomas more frequently will appear in the posterior loin but when extremely large may be identical in appearance with Wilms' tumor. Pyelographically, neuroblastoma more commonly will cause a downward displacement of the kidney with compressive changes relative solely thereto. Neuroblastoma less frequently involves the calyceal system, and often a definite distinction may be made on a plain film between the adrenal mass and the renal outline. An invasive neuroblastoma occasionally may produce pyelograms identical with those of Wilms' tumor, and only upon exploration and histologic study will the differential diagnosis be made. The predilection of neuroblastoma for early bone metastasis is sometimes a guide. Hydronephrosis is rarely a differential problem subsequent to urographic study. Polycystic renal disease if clinically evident in the younger age group is most commonly a bilateral disease, and the total involvement of the collecting system is characteristic. Perirenal tumors occasionally may simulate the urographic picture of Wilms' tumor, but the pyelograms are usually sufficiently bizarre as to suggest lymphosarcoma or Hodgkin's disease. When the pyelographic picture is not characteristic of Wilms' tumor or neuroblastoma and in the rare instances in which splenic enlargements are primary, hematologic studies and further diagnostic evaluation usually will reveal the true nature of the problem. In any instance when the picture remains unclear, exploration should be undertaken.

THERAPY IN RENAL EMBRYOMA

In respect to treatment, there has been recently a more general acceptance of the Boston Children's Hospital technique of emergent diagnostic effort coupled with the most prompt surgical removal compatible with the patient's general condition. The primary goal of surgical exposure is early ligation of the vascular pedicle and the institution of immediate postoperative radiation. In view of the 40 to 50 per cent 2 year survival rate which has accrued from this type of management persistence in it is warranted until a significant number of patients have been treated with the newer preoperative radiation techniques. It is possible that a short course of intensive preoperative radiation may produce better statistical results. Advances in preoperative preparation, anesthesia, fluid balance, and the adjunct of antibiotics obviously have contributed to the increasingly satisfactory statistics. Minimal preoperative palpation of the tumor and early pedicle ligation as

well have added much to the increase in survival rate.

Surgical techniques at present aim at a more atraumatic approach to the tumor achieved by transabdominal or transthoracic methods and allowing for wider exposure of the tumor area prior to any manipulation of the neoplasm itself. A more radical removal of tissue is additionally helpful in preventing local recurrence. That radiation is a potent weapon in the treatment of Wilms' tumor can be construed from the case of Gross and Neuhauser[2] wherein a child with bilateral tumor was alive some 14 years after nephrectomy and roentgen therapy. The hazards of radiation therapy are relative to the effect on the hemopoietic system; complete fibrous replacement of bone marrow may occur with excessive amounts of radiation.

Regarding prognosis, the vast majority of statistics are based on a 2 year survival rate, and it is obvious that a great many of the children who are then alive may show evidence of tumor 5 or 10 years subsequent to the nephrectomy. Johnson[3] reported that 1 of his 49 patients is alive 8 years after roentgen-ray therapy alone. Of his series of 59 Wilms' tumors, only 14 patients are living. Feeney[2] reported 5 of 14 children who were alive after 2 years; only 3 were alive after 5 years, and 1 of these was known to have tumor. Three of Feeney's cases were bilateral, and 4 of Johnson's.

In our hospital, 16 Wilms' tumors were seen between 1947 and 1957, and of these only 2 patients are still alive.

It seems that the average survival rate for 2 years aside from the Boston Children's Hospital group most probably would be between 15 and 20 per cent. A 10 year survival rate is difficult to ascertain, yet sporadic reports reveal a continuing decimation of those who have survived 2 years. It appears that the eventual cure rate would not exceed 10 per cent. Johnson[3] and others have employed intravenous nitrogen mustard in a dosage of 0.4 to 0.8 mg. per kilogram of body weight during the immediate postoperative period. This coupled with radiation therapy may be productive of somewhat better tumor ablation.

Renal carcinoma in its diagnosis and treatment varies little from that of Wilms' tumor, but is of most infrequent occurrence in childhood. Beattie,[1] reporting a case of carcinoma in a 7 year old girl, mentioned the fact that only 4 are in the American Tumor Registry and cited 2 others seen subsequent to his report. They differ in no way from the adult type of renal carcinoma. In view of the possibility that postoperative radiation is of value in the hypernephroid tumor, it would seem reasonable to afford children so afflicted such radiation.

CONCLUSION

In respect to genitourinary neoplasms in children, the approach must be one of discovery of renal tumors when they are small, by mandating immediate and complete urologic study should any suggestive urinary tract symptomatology occur. It is only with increasing publicity that cases more suitable for cure may be found.

REFERENCES

1. Beattie, J. W.: Hypernephroma in 7-Year-Old White Girl, J. Urol. 72:625-628 (Oct.) 1954.
2. Feeney, M. J.; Mullenix, R. B.; Prentiss, R. J.; and Whisenand, J. M.: Clinical Experiences with Wilms' Tumors, J. Urol. 74:301-311 (Sept.) 1955.
3. Johnson, S. H., III, and Marshall, M., Jr.: Primary Kidney Tumors of Childhood, J. Urol. 74:707-720 (Dec.) 1955.
4. Lowsley, O. S., and Kimball, F. N.: Sarcoma of Prostate with Review of Literature, Brit. J. Urol. 6:328-348 (Dec.) 1934.
5. Morse, W. H., and Jarman, W. D.: Sarcoma Botryoides of Bladder in Children, J. Urol. 70:900-905 (Dec.) 1953.

Dr. Thompson, Department of Urology, University of Michigan, Ann Arbor.

Dr. Schneider, Department of Urology, University of Texas Medical Branch, Galveston.

Dr. Nickell, Department of Radiology, University of Texas Medical Branch, Galveston.

Transfusions Number 4,500,000

Blood transfusions numbered more than 4,500,000 during 1956, the Joint Blood Council has estimated. These transfusions were given to nearly 2,000,000 Americans, and approximately 5,000,000 pints of blood were collected through various agencies during the year.

A survey conducted by the council and reported in the November 2 issue of the *Journal of the American Medical Association* indicated that blood from voluntary unpaid donors provided 36 per cent of blood collected; American Red Cross regional collection centers provided 38 per cent; commercial blood banks, 11 per cent; nonhospital community blood banks, 9.3 per cent; hospitals that furnish blood to other hospitals, 4 per cent; and directly paid donors, 2 per cent.

Pain Relieving Drug May Prove Successful

Research results on normorphine indicate that there soon may be success in finding safer and better analgesics. In recent experiments this drug has proved active in relieving pain and caused relatively mild side reactions in animals. While not free of addiction liability, it showed in addiction studies in human beings distinct advantages over other analgesics.

Scientists at the Merck Institute for Therapeutic Research, Rahway, N. J., found that although normorphine is less potent in relieving pain in dogs than morphine, the dosage could be increased to give it equal potency without increasing ill effects.

Human studies at the United States Public Health Service Addiction Research Center at Lexington, Ky., showed only relatively mild signs of abstinence when normorphine treatment was stopped. Side reactions were considerably milder than from morphine.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-22, 1958 (Executive Council, Jan. 19, 1958). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.

Current Meetings

DECEMBER

American Medical Association, Clinical Meeting, Philadelphia, Dec. 3-6, 1957. Dr. David B. Allman, Atlantic City, Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, Los Angeles, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Private Clinics and Hospitals Association of Texas, Dallas, Dec. 14-15, 1958. Dr. R. D. Holt, Meridian, Pres.; Mr. Bill Schumacher, Box 383, Sherman, Executive Secy.

Texas Academy of Internal Medicine, Houston, Dec. 7-8, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy; Miss Luanna Knox, Assistant Secretary.

JANUARY

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Society of Pathologists, Dallas, Jan. 25-26, 1958. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, Box 57, Dallas, Secy.

Twelfth District Society, Corsicana, January 14, 1958. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. Carl E. Arbesman, Buffalo, N. Y., Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.

American Academy of General Practice, Dallas, March 24-27, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 12-17, 1958. Dr. Leroy A. Schall, Boston, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester, Minn., Secy.

American Academy of Pediatrics, New York, April 21-23, 1958. Dr. Stewart H. Clifford, Brookline, Mass., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.

American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2 East 54th, New York 22, Secy.

American Association of Obstetricians and Gynecologists. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society, New York, Oct. 29-31, 1958. Dr. L. T. Coggeshall, Chicago, Pres.; M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Oval R. Withers, Kansas City, Pres.; Dr. Giles A. Koelsche, Mayo Clinic, Rochester, Minn., Secy.

American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology, New Orleans, Oct. 20-28, 1958. Dr. C. Wilmer Wirts, Philadelphia, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Richard A. Kern, Philadelphia, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 5-8, 1958. Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Philadelphia, Aug. 24-29, 1958. Dr. Donald L. Rose, Kansas City, Kan., Pres.; Dorothea C. Augustin, 30 N. Michigan Ave., Chicago, Executive Secretary.

American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.

American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Asheville, N. C., May 19-21, 1958. Dr. Howard C. Taylor, Jr., New York City, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.

American Heart Association. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, Chicago, Aug. 18-21, 1958. Mr. Tol Terrell, San Angelo, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago 10, Executive Director.

American Laryngological, Rhinological, and Otological Society, San Francisco, May 21-23, 1958. No 1957 meeting. Dr. Lawrence R. Boies, Minneapolis, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N. Y., Secy.

American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walter S. Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopedic Association, Hot Springs, Va., June 24-27, 1958. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.

American Pediatric Society, Atlantic City, N. J., May 8-9, 1958. Dr. A. Ashley Weech, Cincinnati, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.

American Public Health Association, St. Louis, Oct. 27-31, 1958. Roy J. Morton, New York 19, Pres.; Dr. Berwyn F. Mattison, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists, Pittsburgh, Pa., Oct. 19-24, 1958. Dr. Ralph S. Sappenfield, Miami, Pres.; Dr. J. E. Remlinger, Jr., Wilmette, Ill., Secy.

American Society of Clinical Pathologists, Chicago, Nov. 1-8, 1958. Dr. Harry P. Smith, New York, Pres.; Dr. Clyde G. Culbertson, 1040 W. Michigan, Indianapolis 7, Secy.

American Surgical Association, New York, April 16-18, 1958. Dr. John H. Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.

American Urological Association, New Orleans, April 28-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, San Francisco, April 10-19, 1958. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Philadelphia, May 18-23, 1958. Dr. William M. Morgan, New York, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Radiological Society of North America. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, New Orleans, Nov. 3-6, 1958. Dr. W. Kelly West, Oklahoma City, Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Tennessee, October, 1958. Dr. Frank Luton, Nashville, Pres.; Dr. Iverson O. Brownell, Greenville, S. C., Secy.

Southwest Allergy Forum, Shreveport, Feb. 23-25, 1958. Dr. H. Whitney Boggs, Shreveport, Pres.; Dr. J. D. Youman, 2021 Line Ave., Shreveport, Secy.

Southwest Regional Cancer Conference, Fort Worth, September, 1958. Dr. O. J. Wollenman, Jr., Fort Worth, Chm.; Mrs. Ira Frances Ball, 264 W. 11th, Fort Worth, Secy.

Southwestern Medical Association, Tucson, Ariz., Oct. 23-25, 1958. Dr. Louis G. Jekel, Phoenix, Pres.; Dr. Russell L. Deter, 1501 Arizona, El Paso, Secy.

Southwestern Society of Nuclear Medicine, Dallas, April 12-13, 1958. Dr. Jack G. S. Maxfield, Dallas, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Tri-State Medical Assembly, Shreveport, Sept. 18, 1958. Dr. James Gatline, Camden, Ark., Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

State

Texas Academy of General Practice, San Antonio, Sept. 22-24, 1958. Dr. G. W. Cleveland, Austin, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Air-Medics Association, Houston, April 20-21, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, Houston, April 20, 1958. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 20, 1958. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Houston, April 20, 1958. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Geriatrics Society. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, Houston, April 20, 1958. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Dallas, May 5-8, 1958. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Industrial Medical Association, Houston. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neurophychiatric Association. Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, Houston, April 22, 1958. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Houston, April 21, 1958. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Pediatric Society, Fort Worth, October, 1958. Dr. T. J. McIlhenney, Austin, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Physical Medicine and Rehabilitation Society, Houston, April, 1958. Dr. Odon F. von Werssowetz, Gonzales, Pres.; Dr. Edward M. Krusen, Baylor Hospital, Dallas, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists, Houston, April 20, 1958. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Houston, April 20, 1958. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Plastic Surgeons, Houston, April 19, 1958. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, El Paso, April 6-7, 1958. Dr. J. Peyton Barnes, Houston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Houston, April 20, 1958. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association, Houston, March 27-29, 1958. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society, Lamesa, Spring, 1958. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Amarillo, April 5, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society, San Angelo, 1958. Dr. Fred D. Spencer, Brownwood, Pres.; Dr. W. Lacey Smith, 111 E. Harris, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, 1958. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 129 Rainbow Lane, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Eighth District Society, Galveston, October, 1958. Dr. John H. Childers, Galveston, Pres.; Dr. M. Warren Hardwick, Angleton, Secy.

Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.

Tenth District Society. Dr. B. F. Pace, Beaumont, Pres.; Dr. W. J. Poshataske, Silsbee, Secy.

Eleventh District Society. Dr. George M. Hilliard, Jacksonville, Pres.; Dr. Phillip W. Taylor, 833 S. Beckham, Tyler, Secy.

Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. Charles Wise, Naples, Pres.; Dr. George Bennett, 402 S. Bolivar, Marshall, Secy.

Clinics

Blackford Memorial Cancer Lectures. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Executive Offices, 433 Medical Arts Bldg., Dallas 1.

New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 18, 1958. Dr. J. B. Hathorn, Jr., 1500 8th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 27-29, 1958. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 21-23, 1958. Dr. Charles D. Reece, Pres.; Dr. C. Forrest Jorns, Secy., Exec. Office, 412 Jesse Jones Library Bldg., Houston 25.

State Tumor Conference, Wichita Falls, April 12, 1958. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences, April, 1958. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Ratliff, Chief Clerk, 303 East Seventh, Austin.

MEDICOLEGAL NOTES

Autopsies

A subject which frequently gives rise to various legal questions is the one of autopsies performed by physicians. This undoubtedly is brought about because physicians of Texas are well aware that liability can arise from performing an autopsy without proper authorization.

A frequent problem deals with a situation in which a physician has been called in by a justice of the peace to perform an autopsy. After the autopsy has been performed, it is discovered that the order of the justice of the peace was void or invalid. The question then arises: Does the fact that this order of the justice of the peace is declared void result in liability on the part of the physician? This question can be answered by citing Article 970a of the Code of Criminal Procedure:

> Any physician duly licensed under the laws of the State of Texas to practice medicine, who, when an autopsy is ordered by a Justice of the Peace, performs the autopsy in the good faith belief that the order of autopsy is a valid order, shall not be held liable for damages in event it should be determined that the order of autopsy made by the Justice of the Peace is for any reason invalid.

As can be seen from this section of the statute, so long as the physician performs the autopsy in a good faith belief that the order of autopsy is a valid order, no liability shall result in the event the order is declared invalid or void.

Another question, and one which often arises in situations involving autopsies, deals with consent. In these cases, consent is essential because of a lack of proper grounds for the ordering of an autopsy. One of the reasons for the autopsy is to further medical knowledge. The first step that must be taken before such autopsy is performed is to obtain the consent of the appropriate person to perform such autopsy. Unless this is done, it may well result in liability on the part of the physician. This liability would be based upon an action for damages for the mutilation of the body of the deceased, and the law recognizes that the next of kin of the deceased have such an interest in the deceased as would support an action for damages. Such consent can be either oral or written, but I am of the opinion that it is advisable the consent be in writing. This would be for the further protection of the physician in the event that at some later date it was claimed no such consent had been given or that there had been a misunderstanding as to what procedure was to be performed.

Still another question which presents itself in regard to obtaining this consent is: Who is authorized to give such consent? Article 970b, Code of Criminal Procedure, sets forth the proper persons to give this consent and in the order that they shall be authorized to give such consent. In the case of a

Married person
1. Surviving spouse
2. If no surviving spouse
   a. Any child of the marriage
   b. In event child is a minor
      (1) Guardian of such child
      (2) If no guardian, court having jurisdiction of the minor
3. If no surviving spouse or child, then one allowed to give such permission in the case of an unmarried person

Unmarried person
1. Father
2. Mother
3. Guardian
4. Next of kin
5. In absence of these
   a. Any natural person assuming custody of and responsibility for burial
   b. If two or more assume custody, consent of one will be sufficient

The main points to be remembered in cases in which the autopsy is for the furtherance of medical knowledge and not upon the order of a justice of the peace is that consent is essential to protect the physician from liability, it is preferable to have such consent in writing, and the proper person should give the consent, this being set forth by Article 970b.

—PHILIP R. OVERTON, LL.B., Austin.

EDUCATION

Southwestern Medical School

Dr. P. O'B. Montgomery, associate professor of pathology at the University of Texas Southwestern Medical School, Dallas, and director of the cell research project, recently accepted a $15,000 contribution made to the school by the Ladies Auxiliary to the Veterans of Foreign Wars. The contribution, presented at the auxiliary's convention in Miami, was given for research studies of living cancer cells.

New faculty members at Southwestern include Dr. Robert Lee Stubblefield as head of the Department of Psychiatry and Dr. Richard T. Smith as associate professor of pediatrics. Dr. Smith will do research in immunity in infants and children under a grant as a senior investigator sponsored by the National Arthritis and Rheumatism Foundation.

Enrollment at Southwestern now totals 387 full time regular students, of which 105 are freshmen, 93 sophomores, 96 juniors, and 93 seniors, including 1 special.

A survey of nursing needs and resources in Texas, sponsored by the Board of Nurse Examiners, Texas Graduate Nurses Association, and Texas League for Nursing in cooperation with the Texas Commission on Patient Care, has been granted $5,000 by Southwestern Medical Foundation, half of the sum needed for the year-long study. The survey will be concerned with the present number of nurses in all areas of service, minimum number needed for each area, future supply, and areas of nursing service for further study to determine best utilization of nursing skills.

Medical Art Degree Offered Only at Southwestern

Recognition of Lewis B. Waters, head of the Department of Medical Art at Southwestern Medical School of the University of Texas, Dallas, has come through his election as president of the international Association of Medical Illustrators. In 1945, Southwestern Medical School established the world's first course of study leading to the master of medical art degree under the direction of Professor Waters.

All students entering Southwestern for the 2 year art course must have a college degree or its equivalent. At the school, students study anatomy, histology, pathology, and physiology, as well as medical photography, medical exhibit work, and other drawing techniques. They learn to depict all parts of the body with pen and ink, water color, tone, dry brush, and charcoal. Students must know all parts of human anatomy, both normal and abnormal, for the artist must learn not only to copy a condition he sees, but to draw parts of the inner man he cannot see.

Students make several trips a year to a photoengraving plant in order to pass an examination on modern methods of engraving and duplicating so they will know how pictures are reproduced. They also learn how to make lantern slides and wax models. They are taught to handle movie and still cameras and to build three-dimensional exhibits. They often visit operations, make 3-minute sketches (art shorthand), and later complete the drawings in detail.

Eighteen men and women have taken the M.M.A. degree at Southwestern. Graduates occupy good jobs with publishing companies, with pharmacy companies, and in medical centers.

Mr. Waters, a graduate in pharmacy, wanted to be a doctor, but war service resulting in temporary poor health steered him into capitalizing on his ability in art. After completing a course in medical art at Johns Hopkins University and working briefly at the Army Medical Museum in Washington, Mr. Waters was brought to Dallas in 1926 as a member of the Baylor University College of Medicine faculty. When Baylor moved to Houston, he established the medical art department at Southwestern, where the first graduate under the master degree program, Miss Patricia O'Neill, now shares faculty chores with him as an associate professor.

The 1958 convention of the Association of Medical Illustrators will be held in Dallas next October.

Baylor University College of Medicine

Baylor University College of Medicine, Houston, recently was awarded grants totaling $229,318 by the National Institutes of Health. The grants were for 20 research projects being conducted by faculty members in the Departments of Anatomy, Anesthesiology, Biochemistry, Microbiology, Pathology, Pediatrics, Pharmacology, Physiology, Psychiatry, Radiology, and Surgery.

Baylor is one of the 25 colleges and universities selected to receive appropriations, made by the Markle Foundation during 1956-1957, for the purpose of supporting teachers and investigators to continue the Foundation's Scholar in Medical Science program. A sum of $750,000 was appropriated for these scholars. The Baylor scholars are Dr. Roger Guillemin, Dr. George C. Morris, Jr., and Dr. Harold Tivey.

An outstanding cardiac and thoracic surgeon of London, Sir Russell Brock, was guest of Baylor in November as the Taub Visiting Professor of Surgery. Sir Russell was knighted for his contributions to the surgery of heart valves and for his developments in lung surgery.

Postgraduate Courses

American Diabetes Association (Committee on Professional Education), Atlanta, Ga., January 22-24.—Diabetes and basic metabolic problems will be covered in the 3 day course, for which 20 hours' postgraduate credit will be given by the American Academy of General Practice. The fee for members of the American Diabetes Association is $40 and for nonmembers $75. Further information is available from the diabetes association, 1 East 45th Street, New York 17.

Anesthesiology, Houston, February 19-21.—Dr. William S. Derrick is the instructor in charge of the third annual course in anesthesiology for physicians and dentists presented by the University of Texas Postgraduate School of Medicine. Twenty credit hours will be given by the American Academy of General Practice; tuition fee is $45. Applications and inquiries should be directed to the school, Texas Medical Center, Houston 25.

Nine Investigators To Speak at Oklahoma Colloquy

The first Oklahoma Colloquy on Advances in Medicine will be held February 6-8 in Oklahoma City. The program, sponsored by the Baxter Laboratories, will be devoted to problems of fluid, electrolyte, and nutritional balance. It has been developed by the Department of Medicine and the Division of Postgraduate Medical Education of the University of Oklahoma.

Nine nationally prominent investigators will participate and present the results of original work from their laboratories. Guest speakers will be Dr. William E. Abbott, associate professor of surgery, Western Reserve University, Cleveland; Dr. Curtis Artz, associate professor of surgery, University of Mississippi, Jackson; Dr. John H. Bland, professor of medicine, University of Vermont Medical School, Burlington; Dr. Robert E. Cooke, professor of pediatrics, Johns Hopkins School of Medicine, Baltimore; Dr. Ben I. Heller, professor of medicine, University of Arkansas, Little Rock; Dr. Rachmiel Levine, chairman, Department of Medicine, Michael Reese Hospital, Chicago; Dr. John F. Mueller, assistant professor of medicine, University of Cincinnati, Cincinnati; Dr. Arnold S. Relman, associate professor of medicine, Boston University School of Medicine, Boston; and Dr. Robert Tarail, associate chief of medicine, Roswell Park Memorial Institute, Buffalo.

Registration will be open to all physicians. There will be a registration fee of $25. Members of the Armed Forces, interns, and residents may attend without charge. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City.

Freshman Medical Students Continue to Increase

More freshmen medical students were enrolled in American medical schools during 1956-1957 than ever before, according to reports made by the American Medical Association's Council on Medical Education and Hospitals. Students totaled 7,791 compared with 7,686 in 1955-1956.

The freshmen were part of 28,852 students enrolled in the 78 approved 4 year medical schools and 4 schools of 2 year basic medical science in the United States. The year 1956-1957 was the eighth consecutive one in which a new record in total enrollment was established, according to the report.

The schools, in addition to teaching medical students, taught more than 62,000 other undergraduate students in allied medical fields, as well as assisting in the education of interns and residents and practicing physicians doing postgraduate study. More than $200,000,000 was spent by these medical schools in 1956-1957.

TB Topics: Selection of Drugs in Treatment

Almost all therapy plans for tuberculosis include the use of antimicrobial drugs. Best results are obtained when a combination of two or more drugs is given continuously for a prolonged time; a drug should not be used alone unless other drugs are contraindicated.

Preliminary to therapy, efforts should be made to culture the tubercle bacilli and to determine drug susceptibilities. This is essential for patients whose sputum cultures remain positive after adequate treatment.

Streptomycin, aminosalicylic acid (PAS), and Isoniazid are the three most commonly used drugs. Although there is not complete agreement as to the optimum regimens, it appears that Isoniazid and aminosalicylic acid is slightly superior to streptomycin and Isoniazid; both of these are superior to streptomycin and aminosalicylic acid.

For more detailed information, the reader is referred to the *American Review of Tuberculosis and Pulmonary Disease* 72:408-413 (March) 1955, or *Diseases of the Chest* 32:346-351 (Sept.) 1957.

—Committee on Tuberculosis,
Texas Medical Association.

MEDICAL MEETINGS

Dr. Rouse Named President-Elect Of Southern Medical Association

Dr. Milford O. Rouse, past President of the Texas Medical Association, was named president-elect of the Southern Medical Association at its November 11-14 meeting in Miami Beach. This was the group's largest meeting in 51 years, with an unofficial total registration of 5,761, of which 3,133 were physicians. Dr. W. Kelly West, Oklahoma City, became president.

The organization's research medal went to Dr. Joseph M. Hill, Dallas, director of the Wadley Research Institute and Blood Bank and director of the Baylor University Hospital Laboratories.

Dr. Kenneth M. Lynch, president and dean of the faculty of the Medical College of South Carolina, received the association's distinguished service award.

Dr. Rouse, who was a founder of the Dallas Health Museum in 1946 and has been its secretary ever since, has been president of the Dallas Southern Clinical Society and is now chairman of the Texas delegation to the American Medical Association's house of delegates. He is a fellow and life member of the American College of Physicians, a member of the American Gastroenterological Association, and a diplomate of the American Board of Internal Medicine and of the Subspecialty Board of Gastroenterology.

He will assume his duties at the 1958 session of the Southern Medical Association, which will be held in New Orleans, November 3-6. The Dallas-Fort Worth area was selected as the meeting place for the 1961 session.

Texans who served as section officers at the meeting included Dr. Tate Miller, Dallas, gastroenterology; Dr. J. O. S. Holt, Jr., Dallas, general practice; Dr. Robert A. Wise, Houston, industrial medicine and surgery; Dr. Ellard M. Yow, Houston, internal medicine; Dr. Oscar O. Selk, Jr., Houston, physical medicine and rehabilitation; and Dr. J. Wade Harris, Houston, proctology. Dr. Martin L. Towler, Galveston, was chairman-elect in neurology and psychiatry. More than 20 physicians from Texas gave papers at the meeting.

Blood Banks Association Celebrates

Observing its tenth anniversary, the American Association of Blood Banks drew a registration of 863 at its meeting in Chicago, November 4-6. These represented 41 states and 8 foreign countries.

Dr. E. E. Muirhead, Dallas, outgoing president, presided over sessions of the society, which honored Miss Marjorie Saunders, also of Dallas, with the John Elliott award. Miss Saunders first envisioned the organization of a national blood bank association and served as its elected secretary until her resignation at the meeting just past. Baylor University Hospital, Dallas, which sponsored a blood bank institute in November, 1947, resulting in the development of the American Association of Blood Banks, received a citation which will be made permanent in a bronze plaque.

Karl Landsteiner awards, given annually for contributions to blood banking, were presented to Drs. R. R. Race and Ruth Sanger of London, guests at the meeting. These and the other awards were announced at a banquet for which Senator Barry Goldwater of Arizona was speaker. Past presidents were honored at another dinner.

It was voted to move the office of the association to Chicago in view of Miss Saunders' resignation; the move was expected to be completed by January 1.

New officers include Dr. Oscar B. Hunter, Jr., Washington, D. C., president, and Dr. John B. Alsever, Phoenix, Ariz., secretary. The only Texan currently serving as an official is Miss Jean Stubbins, Galveston, a district director.

Southwestern Medical Group Elects

Dr. Russell L. Deter, El Paso, was elected secretary-treasurer of the Southwestern Medical Association at the October 9-11 meeting in El Paso. Other officers include Dr. Louis G. Jekel, Phoenix, Ariz., president; Dr. A. R. Clauser, Albuquerque, N. Mex., president-elect; and Dr. Wendell Peacock, Farmington, N. Mex., vice-president.

Speakers included Dr. William Parson, University of Virginia School of Medicine, Charlottesville, medicine; Dr. Oscar Creech, Jr., Tulane University School of Medicine, New Orleans, surgery; Dr. E. E. Muirhead, University of Texas Southwestern Medical School, Dallas, pathology; Dr. Frederick C. Bost, University of California School of Medicine, San Francisco, orthopedic surgery; Dr. J. S. De Tar, Milan, Mich., general practice; Dr. Robert A. Hingson, Western Reserve University, Cleveland, anesthesiology; Dr. Howard P. House, University of Southern California School of Medicine, Los Angeles, otolaryngology; Dr. Phillips Thygeson, University of California School of Medicine, San Francisco, ophthalmology; Dr. Edward A. Banner, Mayo Clinic, Rochester, Minn., obstetrics and gynecology; and Mac F. Cahal, executive secretary of the American Academy of General Practice.

Technical exhibits were on display during the meeting, and eight specialty organizations or sections convened.

Social activities included a party for which the Southwestern Surgical Supply Company was host and a coffee and luncheon sponsored by the Woman's Auxiliary to the El Paso County Medical Society.

Clinics and Hospitals Association Meets

The Private Clinics and Hospitals Association of Texas held its annual meeting in Dallas, December 14-15.

Speakers and topic areas included:

Licensed Vocational Nursing—Dr. Russell D. Holt, Meridian.
Blue Cross of Texas—Dr. Roy Lester and Bob Hawthorne, Dallas.
Legal and Legislative Problems—Dr. M. O. Rouse, Dallas; Dr. Howard O. Smith, Marlin; Philip Overton, Austin; and Bob Hawthorne, Dallas.
Clinic Group Practice of Medicine—Dr. Van Goodall, Clifton; Dr. L. L. Travis, Jacksonville; Carroll H. McCrary, Tyler; and Dr. Howard O. Smith, Marlin.
Hospital Accreditation—Dr. Joe Shepperd, Burnet; Henry Taylor, Dallas; and Tol Terrell, San Angelo.

Dr. A. Q. Sartain, professor of psychology at Southern Methodist University, Dallas, spoke at the luncheon.

North Texas-Southern Oklahoma Conference Features Five

The largest attendance thus far achieved by the North Texas-Southern Oklahoma Fall Clinical Conference was noted October 19 in Wichita Falls, when 205 registered for the program featuring Dr. Helen B. Taussig, Johns Hopkins Hospital, Baltimore; Dr. J. A. del Regato, Penrose Cancer Hospital, Colorado Springs; Dr. Carl A. Moyer, Washington University, St. Louis; Dr. Frank H. Krusen, Mayo Clinic, Rochester, Minn.; and Dr. Willis E. Brown, University of Arkansas School of Medicine, Little Rock.

In addition to the scientific program, guests saw the exhibits of 50 pharmaceutical companies, participated in a round-table luncheon, and attended a dinner dance.

The conference for 1958 is scheduled for October 18, again at the Wichita Falls Country Club. For that event Dr. J. B. Hathorn, Jr. is chairman; Dr. Kenneth Deets is reservation chairman; and Dr. Clinton Shaw, publicity chairman.

San Antonio Announces Medical Assembly Plans

The International Medical Assembly of Southwest Texas will be held January 27-29 in San Antonio with 17 guest speakers. A seminar on Sunday, January 26, will be presented by the San Antonio Division of the Post Graduate School of Medicine of the University of Texas for 6 to 8 hours of category 1 credit.

The guest speakers will be as follows:

Allergy—Dr. Stanley F. Hampton, chief of Allergy Clinic, Washington University School of Medicine, St. Louis.

Dermatology—Dr. Clarence Livingood, chief of dermatology, Henry Ford Hospital, Detroit.

Gynecology—Dr. N. W. Philpott, professor of obstetrics and gynecology, McGill University Faculty of Medicine, Montreal, Canada.

Internal Medicine—Dr. Demetrio Sodi Pallares, chief of Department of Electrocardiography, National Institute of Cardiology, Mexico City; Dr. F. Raymond Keating, Jr., professor of medicine, Mayo Foundation, Rochester, Minn.; Lt. Col. David L. Deutsch, chief of gastroenterology, Army Medical Service School, Brooke Army Medical Center, Fort Sam Houston.

Obstetrics—Dr. William F. Mengert, head, Department of Obstetrics and Gynecology, University of Illinois College of Medicine, Chicago.

Ophthalmology—Dr. Howard Naquin, associate professor of ophthalmology, Johns Hopkins University School of Medicine, Baltimore.

Orthopedics—Dr. LeRoy C. Abbott, professor of orthopedic surgery emeritus, University of California Medical School, San Francisco.

Otolaryngology—Dr. A. C. Furstenberg, chairman, Department of Otolaryngology, and dean, University of Michigan Medical School, Ann Arbor, Mich.

Pathology—Col. Frank M. Townsend, deputy director, Armed Forces Institute of Pathology, Washington, D. C.

Pediatrics—Dr. Lawson Wilkins, director of pediatric endocrinology, Johns Hopkins University School of Medicine, Baltimore.

Psychiatry—Dr. Francis J. Hamilton, assistant professor of psychiatry, New York Hospital, New York.

Radiology—Dr. Barton R. Young, clinical professor of radiology, Temple University School of Medicine, Philadelphia.

Surgery—Dr. Bentley P. Colcock, surgeon, Lahey Clinic, Boston; Dr. Warren Cole, head, Department of Surgery, University of Illinois College of Medicine, Chicago; Dr. C. Everett Koop, surgeon in chief, Children's Hospital of Philadelphia.

The formal program will be interrupted by informal sectional luncheons each day, and an array of technical exhibits will be displayed. All meetings and exhibits will be housed at the Gunter Hotel.

The entertainment schedule includes a refreshment and friendship party, a brunch and style show for the ladies, a frontier casino and buffet supper, a golf tournament, and a cocktail buffet.

Those interested may register by sending $20 to the International Medical Assembly of Southwest Texas, 202 W. French Place, San Antonio.

Austin Entertains Texas Ophthalmologists, Otolaryngologists

The thirty-second session of the Texas Society of Ophthalmology and Otolaryngology was held December 6-7 in Austin. The scientific program was as follows:

OPHTHALMOLOGY

Friday, December 6

Dr. Weldon O. Murphy, Amarillo, Presiding

Uveal Malignant Melanomas—Dr. Max Baldridge, Texarkana.
Discussion: Dr. Edward D. McKay, Amarillo.

True Ptosis, Pseudo Ptosis, and Surgical Treatment—Dr. Rudolph Aebli, New York.

Care of Sharp Ophthalmological Instruments—Dr. Sam N. Key, Jr., Austin.
Discussion: Dr. J. L. Mims, Jr., San Antonio.

Central Inflammatory and Degenerative Disorders of the Fundus—Dr. Tullos O. Coston, Oklahoma City.

Saturday, December 7

Cataract Extraction—Dr. Tullos O. Coston, Oklahoma City.

Treatment of Senile Macular Degeneration by Transplantation of the Inferior Oblique Muscle—Dr. Ronald M. Burnside, Dallas.
Discussion: Dr. Oscar Marchman, Jr., Dallas.

Ocular Muscle Surgery—Dr. Rudolph Aebli, New York.

Marginal Dystrophy; Report of Case with Traumatic Rupture—Dr. Berton F. Frink, McAllen.
Discussion: Dr. Everett L. Goar, Houston.

OTOLARYNGOLOGY

Friday, December 6

Dr. E. King Gill, Corpus Christi, Presiding

Facial Fractures of Interest to Otolaryngologist—Dr. John M. Converse, New York.

Sphenoid Sinus—Dr. Lawrence T. Pulliam, Houston.
Discussion: Dr. John Barrett, Houston.

Surgical Treatment of Chronic Otitis Media for the Purpose of Hearing Improvement—Dr. Henry L. Williams, Rochester, Minn.

Hamartoma of the Trachea; Report of a Case with Review of the Literature of Benign Tracheal Neoplasms—Dr. Charles F. Engelking, San Angelo.
Discussion: Dr. William P. Anthony, Fort Worth.

Saturday, December 7

History of Tracheotomy—Dr. James Oliver Gooch, Midland.
Discussion: Dr. Tom Barr, Dallas.

Some Points of Interest in Corrective Nasal Plastic Surgery—Dr. John M. Converse, New York.

A Technique for Using Preserved Autogenous Skin in Otologic Grafting—Dr. Ben T. Withers, Jr., Houston.

Differential Diagnosis of Meniere's Disease—Dr. Henry L. Williams, Rochester, Minn.

The program included a luncheon for members, a ladies' luncheon, and dinner and dancing for members and their ladies on December 6.

Dr. James T. Robison, Austin, was chairman of the program committee and Dr. B. Palmer Woodson, Austin, was chairman of the committee on general arrangements.

Graduate Medical Assembly To Meet March 3-6

The twenty-first annual meeting of the New Orleans Graduate Medical Assembly will be held March 3-6, 1958, at the Roosevelt Hotel in New Orleans. The assembly has been officially approved for category 1 credit by the American Academy of General Practice. Thirty hours of formal credit will be allowed for attendance at this meeting.

Dr. Carleton B. Chapman, of Dallas, will be among the 18 guest speakers to participate in the program, which will include 54 informative discussions on many topics of current medical interest, in addition to clinicopathologic conferences, symposiums, medical motion pictures, round-table luncheons, and technical exhibits.

Following the meeting in New Orleans, arrangements have been made for a postclinical tour to Mexico City, Cuernavaca, Taxco, and Acapulco. The tour will leave New Orleans on Friday, March 7, and return March 18.

Details of the meeting and the postclinical tour are available at the office of the Assembly, Room 103, 1430 Tulane Avenue, New Orleans 12.

Guest speakers will include Dr. Chapman, cardiology; Dr. Herbert Rattner, dermatology, Chicago; Dr. Charles A. Flood, gastroenterology, New York; Dr. Robert A. Davison, general practice, Memphis, Tenn.; Dr. Lawrence M. Randall, gynecology, Rochester, Minn.; Dr. Bayard T. Horton, internal medicine, Rochester, Minn.; Dr. Perrin H. Long, internal medicine, Brooklyn; Dr. George N. Raines, neuropsychiatry, Washington; Dr. Robert H. Barter, obstetrics, Washington; Dr. Ralph O. Rychener, ophthalmology, Memphis, Tenn.; Dr. C. Leslie Mitchell, orthopedic surgery, Detroit; Dr. Frank D. Lathrop, otolaryngology, Boston; Dr. Arthur H. Wells, pathology, Duluth, Minn.; Dr. James Marvin Baty, pediatrics, Boston; Dr. Harold O. Peterson, radiology, Minneapolis; Dr. Jere W. Lord, Jr., surgery, New York; Dr. Claude E. Welch, surgery, Boston; Dr. Ormond S. Culp, urology, Rochester, Minn.

New Internal Medicine Society

The Amarillo Society of Internal Medicine, recently formed by the internists of Amarillo, meets each month for the purpose of studying scientific aspects of their specialty. The following officers were elected: Dr. E. K. Jones, president; Dr. Isadore Dravin, vice-president; and Dr. Wilbert E. Scott, secretary. Meetings will be held on the first Monday of each month.

Texas Academy of Internal Medicine

The Texas Academy of Internal Medicine met in Houston December 7-8, and the 13 speakers were from Baylor University College of Medicine, Houston. The scientific program was as follows:

Cardiac Tamponade with Particular Reference to the Mechanism of Pulsus Paradoxus—Dr. James K. Alexander.
Mechanisms of Currently Available and Experimental Diuretic Agents—Dr. Ralph V. Ford.
Nephrotic Syndrome—Dr. C. William Daeschner, Jr.
Experimental Leukemia—Dr. A. Kirschbaum.
The Hypothalamus and Obesity; Experimental Studies—Drs. R. Liebelt and J. Perry.
Aneurysms and Occlusive Disease of the Aorta; Analysis of 800 Cases Treated by Resection—Dr. Michael E. DeBakey.
Recent Advances in Heart Surgery—Dr. Denton A. Cooley.
Segmental Thrombo-Obliterative Disease of Branches of Aortic Arch—Dr. E. Stanley Crawford.
A New Physiologic Concept of the "Dumping Syndrome"—Dr. George Morris.
Protein in Response in Infection—Dr. Harold L. Dobson.
Melanocyte Stimulating Hormone—Dr. John M. Knox.
Clinical Pathological Conference—Dr. Ellard M. Yow, Moderator.

New Officers Elected by Harris GP's

Harris County Academy of General Practice elected the following new officers at its business meeting, November 11: Dr. William M. Sherrill, president-elect; Dr. Lawrence E. Carlton, vice-president; Dr. J. Winston Morrison, secretary; Dr. Vincent C. Bash, Jr., treasurer; and Dr. Haden E. McKay, member of the board of directors. These doctors will take office January 1, at which time Dr. Homer A. Taylor, Jr., will become president. All officers live in Houston.

Crippled Children Conference Emphasizes Rehabilitation

Nationally known authorities in the rehabilitation field gave new impetus to the nationwide movement of total physical rehabilitation at the 1957 annual convention of the National Society for Crippled Children and Adults, October 30-November 2 in Chicago.

Dr. Thomas L. Shipman, Los Alamos, N. Mex., an atomic scientist and leader of the health division of the Los Alamos Scientific Laboratory, spoke on the threats of crippling by radioactive fallout resulting from current and future nuclear tests. A toy fair demonstrated the therapeutic uses of toys in treatment of crippled children. A special session was devoted to the crippling effects of strokes and to the physical and psychological processes of rehabilitation.

Houston Neurological Society

The Houston Neurological Society will meet March 13 and 14 in Houston, and the first day will be devoted to a symposium on "Pathogenesis and Treatment of Parkinsonism." Individual contributions from local and visiting physicians and surgeons will be heard the second day, and all interested physicians are eligible to attend. There will be no registration fee, but advance notification of attendance should be sent to Dr. Claude C. Pollard, Jr., 410 Hermann Professional Building, Houston.

Texas Internists Meet in Detroit

Thirty-nine members of the Texas Club of Internists attended the organization's 1957 fall meeting held October 7-11 in Detroit. Various papers and panel discussions were presented by staff members of the club's host, Henry Ford Hospital. The entertainment program included a tour arranged by Ford Motor Company, cocktail parties, and special dinners.

New officers include Dr. C. M. Darnall, Austin, president; Dr. Don Warren, Waco, president-elect; and Dr. L. C. Carter, Port Arthur, secretary-treasurer.

OF GENERAL INTEREST

Lackland Air Force Hospital Dedicated to Education

Dedication of the new Lackland Air Force Hospital at San Antonio to educational purposes was emphasized by Major General Dan C. Ogle, surgeon general of the United States Air Force, in his address at the $12,000,000 hospital November 16. General Ogle also mentioned the need of establishing a civilian medical school in San Antonio, a project San Antonio physicians and other citizens are pushing and one which the Texas Medical Association has approved.

A large group of military and civilian dignitaries were on hand for the dedication ceremonies at the 500 bed hospital, which has been in operation since Labor Day and for which plans to add another 500 beds already have been drawn.

Enlarging on his theme of medical education, General Ogle said in part:

> It is our ambition in the Air Force that our community hospitals scattered throughout the world each become in some measure an educational institution in which medical officers will have an opportunity of practicing their profession, and where they will enjoy an interchange of ideas between themselves and civilian specialist consultants of the community in which they are located. Only by such means can we maintain the high standards of medical care deserved by those in uniform, and only through continual education and training can we be assured of being professionally prepared for the exacting demand of national defense.
>
> . . . it is the duty of all men and women in health fields to become more knowledgeable in the science of medicine and health maintenance, because good health, good nutrition, good living conditions, and good minds provide the greatest resources of this country and the greatest hope for world peace.
>
> . . . War is a form of political-economic-social disease which like the maladies of the flesh can be avoided by continuous health precautions. Our ambitions and methods of attaining victory over disease are very much like our ambitions to attain victory over war itself. However, neither victory can be attained by wish fulfillment, but only by a constructive alliance between men of good will whose faith and trust in themselves, their country, and their God stimulate them to work and wisdom instead of inactivity, futility or complacency. . . . Like war itself, the diseases we have apparently conquered are lying dormant, ever ready to strike back at a relaxed or careless world that neglects attention to the continuing tasks of control.

The new Lackland Air Force Hospital, San Antonio, was dedicated November 16, with Major General Dan C. Ogle as the main speaker.

General Ogle went on to praise San Antonio as a growing center of clinical and military medical education. Mentioning other military medical installations in the city, he said:

> During the process of selecting a site for the new School of Aviation Medicine [construction for which is under way at Brooks Air Force Base], a heavily weighted factor served to keep San Antonio from a position of unquestioned first choice. We believed, and still believe, that our new School and research laboratories should be in the neighborhood of a first class medical school, that much could be gained by association between two such teaching and research institutions. There was no medical school here, but San Antonio was finally selected because of many overriding advantages and because we had faith that this city would one day have its own medical school. I hope it will come in the near future. It is a community and national need that should not be denied.

Personals

Dr. Michael E. DeBakey, chairman of the Department of Surgery, Baylor University College of Medicine, recently was appointed to the National Advisory Heart Council. He also has been awarded the International Society of Surgery's highest award, a medal and citation, for outstanding achievement for 1957. Dr. DeBakey and *Dr. Alvis E. Greer,* professor emeritus of clinical medicine at Baylor, participated in the interim session of the American College of Chest Physicians, December 2-3 in Philadelphia; Dr. DeBakey presented a paper and Dr. Greer was a discussion leader.

Dr. R. Lee Clark, Jr., Houston, was elected second vice-president of the Alumni Association of the Mayo Foundation in Rochester, Minn., in October.

Dr. Merton M. Minter, San Antonio, has had a newly published mystery book dedicated to him. Erle Stanley Gardner, in his "The Case of the Daring Decoy," urges more members of the medical profession to become interested in law enforcement, as Dr. Minter has, because "We need their sharp minds, their diagnostic skills, their seasoned judgment in the field of better law enforcement and the better administration of justice."

Dr. William T. Lhamon, head of the Department of Psychiatry, Baylor University College of Medicine, Houston, and *Robert Sutherland,* Ph.D., Hogg Foundation for Mental Hygiene, the University of Texas, Austin, participated in a meeting in Williamsburg, Va., in August in which ways in which the Southern Regional Program in Mental Health Training and Research might stimulate and facilitate research in the region were discussed.

Mrs. Frances Shipp Lawson, Lorena, daughter of *Dr. W. R. F. Shipp,* Lorena, and sister of *Dr. J. Ross Shipp,* Waco, died November 9 after a stroke.

Dr. F. J. L. Blasingame, soon to leave Wharton to become general manager of the American Medical Association, was honored at a banquet in Wharton on December 11 sponsored by a citizens' committee headed by former mayor Frank Haines. Limited to 300 because of facilities, guests

included Dr. David Allman of Atlantic City, President of the AMA; Dr. George F. Lull of Chicago, secretary and outgoing general manager of the AMA; and Dr. Denton Kerr of Houston, President of the Texas Medical Association.

Dr. Howard O. Smith, Marlin, spoke on ethics at an institute for medical record personnel conducted by the Texas Hospital Association's council on professional service at Waco on November 11.

Robert R. Lowdon of Fort Worth, president of the Stafford-Lowdon Company, which has printed the *Texas State Journal of Medicine* since 1909, died of a heart attack November 10.

Council to Aid Foreign Graduates

The Educational Council for Foreign Medical Graduates, which will carry out a comprehensive program for evaluating foreign medical school graduates, has opened its offices in Evanston, Ill.

The council will distribute to foreign medical graduates around the world information regarding the opportunities and difficulties involved in coming to the United States on an exchange student visa in order to take training as an intern in a hospital, or coming on an immigrant visa with the hope of obtaining a license to practice.

For 2 years, the council will be supported by the American Medical Association, the Association of American Medical Colleges, the American Hospital Association, the Federation of State Medical Boards of the United States, the Kellogg Foundation, and the Rockefeller Foundation. A 10 member board of trustees—two representatives from each of the four sponsoring agencies and two persons representing the public at large—will make up the council.

Doctors Needed for Overseas Missions

The Board of Missions of the Methodist Church has announced a need for 20 doctors, 10 women and 10 men, to serve as medical missionaries in 10 countries overseas in 1958. The openings include internal medicine, surgery, general practice, public health, gynecology, pathology, and radiology. Anyone interested may write the office of Missionary Personnel, 150 Fifth Avenue, New York 11.

Texas Patient Care Commission Closes Office November 1

The Texas Commission on Patient Care closed its office at Austin on November 1, and the Texas Medical Association and Texas Hospital Association staffs will share the responsibility for future activities of the commission.

The commission, which failed to obtain sufficient financial support to continue operations at the level at which it was conducted in 1956 and 1957, originated in 1954 following establishment of a national group in 1947. It was organized by representatives of Texas Medical Association, Texas Hospital Association, Texas Graduate Nurses Association, and Texas League for Nursing and was called the Texas Joint Commission for the Improvement of the Care of the Patient. At that time, it was concerned primarily with plans for patient care improvement through expanded and improved nursing care. In 1956, the name of the commission was changed to Texas Commission on Patient Care.

After 2 years of limited operation, the commission sought the financial support of Texas Medical Association and Texas Hospital Association to underwrite an expanded scope of operation until it could become self-supporting. It then was able to employ an executive secretary and to expand its activities from the nursing field to all the paramedical fields.

Various approaches were developed to acquaint high school children and adults with the opportunities available in the fields of work associated with patient care. These included workshops for vocational guidance councilors, career day programs, training conferences, radio and television programs, newspaper articles, and the installation of special courses in junior colleges and high schools. A publication, "Deep in the Health of Texas," was printed and widely distributed.

Future activities of the commission will be conducted through the staffs of the Texas Hospital Association and the Texas Medical Association. These activities will consist of advice and counsel to paramedical groups seeking to improve and expand training and opportunity for their specialty. Assistance will be given persons of high school age seeking information about the paramedical fields, and efforts will be made to publicize opportunities for careers in health work. Although Texas Medical Association and Texas Hospital Association will cooperate in these efforts, the major responsibility will lie with the organization most directly concerned with the particular project.

Inquiries about the commission should be directed to the Texas Medical Association, and those matters of concern to the Texas Hospital Association will be forwarded to it.

Results of Texas Commission on Patient Care Survey and 20 Year Projection for Health Career Needs in Texas Hospitals.

	Have 1957	Need 1957	Have 1977	Need 1977
Dietitian	250	300	450	550
Medical record librarian	125	190	325	500
Physical therapist	175	265	200†	300
Occupational therapist	115	160	320	500
Medical social worker	170	255	190*	300
Licensed vocational nurse	5,900	6,900	12,000	14,000
Registered nurse	10,000	12,500	20,000	25,000
X-ray technician	300	400	300‡	1,400
Medical technologist (certified by American Society of Clinical Pathologists)	635	850	1,050	1,400
General hospital beds (4.5 beds per 1,000 population)	27,000	28,000	34,000	54,000

It takes 10 student nurses enrolled to cause an increase of 3 registered nurses three years later in Texas hospitals. There is a current indicated shortage of 2,500 registered nurses, according to the current Texas Commission on Patient Care survey, as incorporated with data published in the American Hospital Association's *Hospitals* (Administrators' Guide issue). If this need is to be filled three years from now, 7,500 student nurses would have had to be enrolled this year. In order to fill the growing demands for Texas professional nurses, 50,000 student nurses must be enrolled over the next 20 years or an average enrollment of 2,500 students per year. The highest enrollment year was 1954 with 1,304 students, but there has been a steady decrease thereafter. At this rate the situation 20 years from now will be twice as bad as today.

*Present trend indicates a decrease of 5 per year but should rise of necessity with rest of United States.

†Present trend is stationary but Texas schools graduate an average of 32 per year.

‡Present trend is decrease in registered technicians with a corresponding increase in nonregistered technicians.

Government Spends $2,500,000,000 on Health

The United States is spending approximately $2,500,000,000 on health programs during the current fiscal year, about the same as last year, according to the American Medical Association. At least 23 United States cabinet departments and independent agencies are engaged in some medical operations, and at least 79 separate activities are worthy of listing.

The relatively new Department of Health, Education, and Welfare heads the list of all departments in health spending with a total of $849,394,800. This department tops the Veterans Administration spending $849,374,000, and Defense Department spending $702,000,000, which previously have been at the top of the list.

Disability payments in which the United States participates—not included in the other federal costs because some money comes from other sources—are about $3,200,000,000 this year.

Workshop Held at Shepperd Hospital

Staff members from 12 private clinics and hospitals attended a workshop of the Private Clinics and Hospitals Association of Texas at the Shepperd Memorial Hospital and Clinic in Burnet in November. The objective of the meeting was to assist hospitals in their effort to meet requirements for accreditation by the Joint Commission on Hospital Accreditation. The Shepperd Memorial Hospital was used as a model of the accredited institutions.

Obstetric Board Exams to Be Given

The part II examinations, oral and clinical, for all candidates of the American Board of Obstetrics and Gynecology will be conducted at the Edgewater Beach Hotel, Chicago, by the entire board May 7-17, 1958. Each candidate will receive formal notice of the exact time of his examination. Candidates who participated in the part I examinations will be notified of their eligibility for the part II examinations as soon as possible.

Vaccination Certificates Revised

The International Certificate of Vaccination form was revised in January, 1957, according to the Department of Health, Education, and Welfare of the Public Health Service. Officials have requested that only the revised certificate be distributed to the public.

70.2 Average Age for Wage Earner

The average life expectancy of America's wage-earners and their families continues to increase, according to statisticians of the Metropolitan Life Insurance Company. The company reports that the average length of life among Metropolitan's industrial policyholders reached 70.2 years in 1956, a slight gain over the previous year.

The statisticians said that the average length of life of the industrial policyholder has increased more rapidly than that of the general population of the United States.

MEMORIAL LIBRARY

The Hippocratic Oath

We have developed the medical profession into a highly technical machine through the years. However, no matter how scientific and advanced our thinking becomes, it all goes for naught if we wander, even one iota, from a code older than our present concept of time measurement. The entire code of medical practice is deeply imbedded in the rock of the so-called Hippocratic Oath, a quiet, venerable treatise.

Hippocrates, the early Greek physician, actually lived about 4 centuries before the birth of Jesus Christ. He undoubtedly was possessed of a tremendous insight as to the workings of the human mind and a steadfast sense of values. He set forth many principles governing the manner in which the practice of medicine should be conducted. He was the first to separate medical practice from witchcraft and develop it into a clinical science and art. Strangely enough, one of his greatest precepts was that of treating the patient as a whole—a so-called new concept in medicine today. No manuscripts listing his principles written by him has been unearthed, but there has been a vast amount of medical lore and literature attributed to him and known as the "Hippocratic Collection." The exact origin of these works is obscure, but the trend is to credit them to Hippocrates. Our present day Hippocratic Oath is a small excerpt from this collection.

The Hippocratic Oath, as we see it written, was first translated into English in the sixteenth century and presents these salient vows:

1. To teach the art to those qualified to receive it and remain faithful to one's own teachers.
2. To practice medicine only for the utmost benefit of the patient.
3. To do nothing harmful to the patient.
4. To produce no criminal abortion.
5. To live a life of honesty and purity.
6. Never to use any opportunity for evil or seduction.
7. To leave certain procedures to those in specialized fields.
8. To maintain professional secrecy.

Each is a part of our present day code of ethics. They are principal reasons for the rise of the medical profession to an exalted place in society, and failure of a few doctors to live up to them has cost us dearly in public esteem in the past few years.

It is high time we took a few minutes to read once again the Oath in its entirety. It will never fail to inspire us to greater efforts. There is no doubt but that a return to a study of many of the works of Hippocrates is a major step on the road back to the fully integrated and properly humanized practice of medicine.

Suggested Readings

Adams, Francis: The Genuine Works of Hippocrates, Baltimore, Williams and Wilkins, 1939.

Edelstein, Ludwig: Professional Ethics of Greek Physicians, Bull. Hist. Med. 30:391-419 (Sept.-Oct.) 1956.

Major, Ralph H.: Hippocrates and Isle of Cos, Bull. Soc. Med. Hist. Chicago 5:323-394 (June) 1946.

Mayer, C. F.: Hippocratic Oath, Pledge of Geneva, and ABC Warfare, Mil. Surgeon 111:369-370 (Nov.) 1952.

Piers, F.: Hippocratic Medicine, East African M. J. 34: 57-65 (Feb.) 1957.

Ratner, Herbert: Hippocrates Has Vital Meaning for Physicians, GP 8:93-99 (Aug.) 1953.

Rosenthal, Franz: Ancient Commentary on Hippocratic Oath, Bull. Hist. Med. 30:52-87 (Jan.-Feb.) 1956.

Taylor, T. R.: Annotation of Oath of Hippocrates, Rocky Mountain M. J. 52:354-356 (April) 1955.

Temkin, Owsei: On Interrelationship of History and Philosophy of Medicine, Bull. Hist. Med. 30:241-251 (May-June) 1956.

Wilder, Penfield: Aegean Cradle of Medicine, Tr. & Stud. Coll. Physicians Philadelphia 24:22 (June) 1956.

—W. D. THAMES, JR., M.D., Lufkin.

THE OATH

I swear by Apollo the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this Oath and this stipulation—to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females or males, of freemen and slaves. Whatever, in connection with my professional practice or not in connection with it, I see or hear, in life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men, in all times! But should I trespass and violate this Oath, may the reverse be my lot!

GIFTS TO THE LIBRARY

Dr. George E. Clark, Jr., Austin, 309 journals.

Dr. James M. Graham, Austin, 81 journals.

Dr. Paul Guggenheim, Council Bluffs, Iowa, 2 books; 23 reprints.

Dr. John R. Harris, Bronte, 586 journals.

Dr. L. C. Heare, Port Arthur, 1,071 journals.

Dr. Henry L. Hilgartner, Austin, 24 journals; reprints.

Dr. S. N. Key, Jr., Austin, 14 journals.

Dr. Charles F. Pelphrey, Austin, 8 journals.

Dr. Morris Polsky, Austin, 7 journals; 2 pamphlets.

Dr. R. M. Rothen, Austin, 23 journals; 2 books.

Dr. Nelson R. Schiller, Austin, 55 journals; reprints.

Dr. Lorraine I. Stengl, El Campo, 122 journals; 4 photographs; reprints.

Dr. George W. Tipton, Austin, 106 journals; 23 books.

Dr. B. O. White, Austin, 16 journals.

★ Motion Pictures

Are You Positive?

Sound, color, 14 minutes, 1957.

This animated film asks its viewers how important tuberculosis is to them and to their community. Despite the seriousness of its thought provoking message, the whimsy and humor of its presentation make it a film which all will enjoy.

Fractures of the Femur About the Hip

Sound, color, 21 minutes, 1955.

The anatomy of the region about the hip is shown with special emphasis on the blood supply to the head and neck of the femur. Treatment is detailed for fractures of the femoral neck and for intercondylar fractures. The relative merits of maintenance of reduction by nailing or by traction are discussed.

The Medical Team

Sound, black and white, 8 minutes, 1957.

The scrub nurse, the medical technologist, x-ray technician, occupational therapist, physical therapist, and medical artist are graphically portrayed. This film is geared to recruit students and was made in Hermann Hospital, Houston, and Southwestern Medical School, Dallas. A "Texas in Review" television film, it was deposited by the Texas Commission on Patient Care.

Whitehall 4-1500

Sound, color, 30 minutes, 1957.

This film tells the story behind the American Medical Association's telephone number. Through dramatic case histories it spells out doctors' services as individuals and as members of medical organizations. It shows how doctors as a group work to bring better medical care, health, and life to all Americans. The film is good for showing to civic groups, women's clubs, church groups, and medical societies.

SLIDES

The Medical Office Assistant

A set of 20 slides made by the Texas Commission on Patient Care in Austin and El Paso shows the medical assistant at work.

★ Books

Books Newly Acquired

Altschule, Mark D.: *Roots of Modern Psychiatry—Essays in the History of Psychiatry,* New York, Grune and Stratton, 1957.

Association for Research in Nervous and Mental Disease: *Neurologic and Psychiatric Aspects of the Diagnosis of Aging,* Vol. 35, Baltimore, Williams and Wilkins, 1956.

Atlee, H. B.: *Natural Childbirth,* Springfield, Ill., Charles C Thomas, 1956.

Biddle, William W.: *Cultivation of Community Leaders,* New York, Harper and Brothers, 1953.

Charnley, John: *Closed Treatment of Common Fractures,* ed. 2, Baltimore, Williams and Wilkins, 1957.

Dimond, E. Grey: *Digitalis,* Springfield, Ill., Charles C Thomas, 1957.

Dripps, Robert.; Eckenhoff, James E.; and Vandam, Leroy D.: *Introduction to Anesthesia,* Philadelphia, W. B. Saunders, 1957.

Felton, Harriet M.: *Host-Parasite Relationships in Living Cells,* Springfield, Ill., Charles C Thomas, 1957.

Fox, Joseph: *Chronically Ill,* New York, Philosophical Library, 1957.

Gordon, Thomas: *Group Centered Leadership,* Boston, Houghton Mifflin, 1955.

Great Britain Ministry of Agriculture: *Manual of Nutrition,* New York, Philosophical Library, 1957.

Kanner, Leo: *Child Psychiatry,* ed. 3, Springfield, Ill., Charles C Thomas, 1957.

Lee, Irving J.: *How to Talk with People,* New York, Harper and Brothers, 1952.

Marshall, Mary Louise: *The Physician's Own Library,* Springfield, Ill., Charles C Thomas, 1957.

Mason, A. Stuart: *Introduction to Clinical Endocrinology,* Springfield, Ill., Charles C Thomas, 1957.

Moloney, James Clark: *Fear: Contagion and Conquest,* New York, Philosophical Library, 1957.

Murray, Janet P., and Murray, Clyde E.: *Guide Lines for Group Leaders—The Why and How of Group Work,* New York, Whiteside, 1954.

Palmer, Eddy D.: *Clinical Gastroenterology,* New York, Hoeber-Harper, 1957.

Perera, Charles A.: *May's Manual of the Diseases of the Eye,* ed. 22, Baltimore, Williams and Wilkins, 1957.

Raven, Ronald, Ed.: *Cancer,* London, Butterworth, 1957.

Roberts, Sam E.: *Ear, Nose and Throat Dysfunctions Due to Deficiencies and Imbalances,* Springfield, Ill., Charles C Thomas, 1957.

Trecker, Harleigh B., and Trecker, Audrey R.: *How to Work with Groups,* New York, Whiteside, 1952.

Weitzenhoffer, Andre M.: *General Techniques of Hypnotism,* New York, Grune and Stratton, 1957.

Year Book of Medicine, 1957-1958, Chicago, Year Book Publishers, 1957.

Book Notes

Practical Pharmacology

J. H. BURN, Professor of Pharmacology, University of Oxford. Illustrations by E. M. VAUGHAN WILLIAMS. 72 pages. $5.50. Oxford, Blackwell Scientific Publications, 1957.

A Book of Contemplation

DAGOBERT D. RUNES. 149 pages. $3. New York, Philosophical Library, 1957.

Radiology of the Heart and Great Vessels

ROBERT N. COOLEY, M.D., Professor and Chairman of the Department of Radiology, University of Texas, Medical Branch, Galveston, and ROBERT D. SLOAN, M.D., Professor and Director of the Department of Radiology, University of Mississippi Medical Center, Jackson. 309 pages. $12. Baltimore, Williams & Wilkins Company, 1956.

This presentation appropriately starts with a historical approach to the subject thereby initiating the material in its proper perspective as to origin and logical lines of development with a certain amount of philosophy toward study of the heart as handed down from William Harvey, which is still applicable today. The coverage of equipment, technique, and procedure is stressed.

All of the modes of cardiac study from a radiologic point of view are considered, and many are illustrated with photographs, line drawings, or the actual radiographs themselves. The listing of the materials used in the various procedures is helpful and allows one to evaluate his own procedures by comparison. The inclusion of illustrations from many institutions lends wide coverage. Labelled radiographs and line sketches side by side make for increased clarity of presentation and make the text more easily understood and a quicker source of reference. One is impressed with the attention paid to the normal, for without a normal base line for comparison one cannot properly interpret pathology. The sections on cardiac measurement and the use of the electrokymograph tracings were read with considerable interest.

There is an excellent section on congenital anomalies of the heart and great vessels illustrated with radiographs, contrast studies with sketches, illustrations, and line drawings best suited to bring out the salient features of each condition. Diseases and miscellaneous conditions are encountered in the study of the heart along with lesions found in the pericardium.

Pathological lesions of both the thoracic and abdominal aorta are reviewed after a good discussion of anatomical considerations and etiologic agents and their effects. The liberal use of illustrations of contrast media in the study of the thoracic and abdominal aorta and their branches enhances the value of the book as does a discussion of the contraindications and complications that one might encounter.

This book is recommended reading for anyone interested in the study of the heart and great vessels.

—Joe C. Rude, M.D., Austin.

J.A.M.A. Clinical Abstracts of Diagnosis and Treatment

Published with the Approval of the Board of Trustees, American Medical Association. 564 pages. $5.50. New York, Intercontinental Medical Book Corporation with Grune & Stratton, 1957.

Rypins' Medical Licensure Examinations; Topical Summaries and Questions

WALTER L. BIERRING, M.D., M.A.C.P., M.R.C.P., Edin (Hon.). With the Collaboration of a Review Panel. ed. 8. 964 pages. $10. Philadelphia, J. B. Lippincott Company, 1957.

The editor of the eighth edition of this publication has followed the original plan—separate summaries on each subject and actual questions based on essential facts. He has had excellent cooperation in a panel of outstanding teachers and clinicians in reviewing and bringing the subject matter up to date. The editor believes that there should be closer cooperation between the licensing boards and the medical schools. He feels that the schools should test the student's academic knowledge and the boards should limit themselves to inquiring into the ability of the graduate to apply such knowledge. The present volume aims to cover the material essential for the candidate without repetition and omitting all technical procedures.

A Textbook of Histology

ALEXANDER A. MAXIMOW, Late Professor of Anatomy, University of Chicago and WILLIAM BLOOM, Professor of Anatomy, University of Chicago. ed. 7. 628 pages. 1082 illustrations, 265 in color, on 631 figures. Philadelphia, W. B. Saunders Company, 1957.

The present edition of this standard book of histology includes many electron micrographs which are excellent. It is true that many medical students and relatively few pathologists have access to electron microscopes, but these reproductions are excellent to demonstrate the fine detail of the structure of the cells. In addition, there is a fine section demonstrating in color the details which can be demonstrated by the various methods of fixation and staining as seen under an ordinary microscope. Many medical students never realize the different materials which can be demonstrated by different staining techniques.

The text is an excellent reference for any of the various organ systems of the body with splendid photographs as well as the descriptions in the text. In addition, many areas include some discussion of physiology of the organ which is being described.

This textbook is one that should be owned by anyone doing any examination of tissues, either medical students, histologists, or pathologists.

—George V. Miller, M.D., Houston.

Manual of Hand Injuries

H. MINOR NICHOLS, M.D., Clinical Instructor in Surgery, University of Oregon Medical School, Portland. Foreword by Michael L. Mason, M.D. 352 pages. $9.50. Chicago, Year Book Publishers, 1955.

The rapid growth in interest in development of suitable techniques in hand surgery is due greatly to the increased appreciation of the functional value of the hand socially and economically. Realizing that surgery of the hand demands special training which is seldom received in school or residencies, the author has presented a book that will be of great use to physicians caring for acute injuries. Final constructive procedures may demand the skill of a plastic or orthopedic surgeon, but the immediate emergency is often of most importance—hence it is necessary that every surgeon understand the general principles so that he can undertake the care when the occasion presents itself. This volume should serve as a reliable guide.

Diseases and Disorders of the Colon

ANTHONY BASSLER, M.D., F.A.C.P., F.A.C.G., Consulting Gastroenterologist, New York Polyclinic Medical School and Hospital, New York. 217 pages. $6.75. Springfield, Ill., Charles C Thomas, 1957.

This book is a small one. It is concise and to the point, which makes it easy and quick to read. Because of these factors, the book is suitable for and recommended to the medical student, the general practitioner, and the medical or surgical gastroenterologist.

There is no discussion of basic anatomy or physiology of the colon. The addition of this would improve the reading value of the book.

Many diseases and disorders are discussed after having been categorized under inclusive topics. This makes for easier understanding while reading and better recollection in the future.

Much has been written about disease of the colon. This reflects the inadequacy of knowledge of colon disease. The author emphasizes this and presents the various subjects without didactic or dogmatic statements as to treatment. Instead, he gives a brief but complete definition of the disease or disorder. He presents salient and necessary points of diagnostic value. And finally, he outlines to the reader some of the treatments which have been, are now, and probably will be used in the curtailment or cure of the disease. The surgical entities and procedures, although presented, are somewhat minimized.

However, the reviewer found the discussions on appendicitis, intestinal obstruction, and colitis particularly interesting, informative, and complete.

Appendicitis is thoroughly differentiated from the point of view of being childhood or adult in type. It is further differentiated and categorized into the acute and chronic phase. Both nonsurgical and surgical treatment for each is well outlined along with their respective indications.

Intestinal obstructions are well outlined and defined. A few changing trends as to the etiological frequencies and treatments are presented in an easily readable and comprehensive manner.

Colitis is briefly defined and discussed from the etiological aspect. A differentiation is made between infectious and functional types, and various treatments are suggested. Ulcerative colitis is dealt with in a bit more detail. The disease is defined; a historical etiological and epidemiological review is given; a pathological classification is given; and the complicating sequelae are presented. The author finally sums up the medical treatment of the disease and outlines the cases for surgical intervention.

The parasitic infestations, the anatomic, and functional disorders as well as other subjects are equally well discussed.

The book, although small in volume, is large in context and is worth its price.

—Edward James Mason, Jr., M.D., Pittsburgh, Pa.

Human Blood Groups and Inheritance

SYLVIA D. LAWLER, M.D., External Scientific Staff, Medical Research Council. Galton Laboratory, University College, London; L. J. LAWLER, B.Sc., Formerly of the Polytechnic, Regent Street, London; with a foreword by R. R. Race, Ph.D., M.R.C.S. (England), F.R.S., Director, Medical Research Council Blood Group Research Unit. 103 pages. $1.50. Cambridge, Mass., Harvard University Press, 1957.

Dr. R. R. Race in his foreword states that "a readable, accurate and up-to-date account of the human blood groups, for both the biologists and the lay reader, is long overdue. This admirable little book fulfills all these requirements, and should be widely welcomed."

"Blood groups are of importance in medicine, in anthropology and occasionally in the law, and all these aspects are dealt with in this book," Dr. Race points out. But to the reader with a general interest in biology the most fascinating aspect must surely be their inheritance. The exact manner of inheritance of only eleven normal human characters is yet known with certainty. Since nine of these characters are blood groups, it is important that all students of biology should have some knowledge of this subject. They could have no better guides than Mr. and Dr. Lawler, who have provided a complete and authoritative account."

Clinical Unipolar Electrocardiography

BERNARD S. LIPMAN, M.D., F.A.C.P., Instructor in Medicine, Emory University School of Medicine; Consultant, Glenville Giddings Cardiac Clinic, St. Joseph Infirmary, Atlanta; and EDWARD MASSIE, M.D., F.A.C.P., Associate Professor of Clinical Medicine, Washington University School of Medicine, and Director of Heart Stations, Barnes Hospital and Jewish Hospital, St. Louis. ed. 3. 397 pages. $7.50. Chicago, Year Book Publishers, Inc., 1956.

This edition indicates the wide acceptance and approval of a truly excellent presentation of the subject. The authors have followed the pattern set in earlier editions by illustrating frequently and simply.

The manner in which the authors carry the reader from the

anatomical and physiological considerations to the direct clinical application is expertly achieved. Electrical positioning is stressed. Bundle branch block and myocardial infarction are given special consideration, diagrams again being used profusely. Less common cardiac lesions such as ventricular aneurysm, myocarditis, pericarditis, endocarditis, malignant carcinoid, and cor pulmonale are explained. The effects of cardiac drugs and serum electrolytes in abnormal amounts are discussed. Latent coronary artery disease may be elicited by the two step (Master) exercise test as well as by the anoxemia and other tests, but the exercise test is preferred.

Twenty-one types of congenital heart deviations are discussed; this is timely since the surgeon today can correct many of these under direct vision. The atlas contains illustrative tracings of many of these defects before and after surgery.

A section on vectorcardiography and vector electrocardiography brings the reader up to date on spacial vector interpretation. Though briefly presented, electrocardiograms and diagrams explain the clinical applications.

Cardiac arrhythmias can be diagnosed electrocardiographically when physical methods fail. All abnormal rhythms are didactically presented except the Wolff-Parkinson-White phenomenon; however, a typical tracing is presented in the atlas.

This book is well worth its price in the beautiful atlas tracings presented in the rear. The common and uncommon unipolar electrocardiograms are included followed by congenital defects and cardiac arrhythmias.

This book is heartily recommended to both the student and internist.

—Pierre P. Poole, M.D., Brownsville.

Synopsis of Gastroenterology

RUDOLF SCHINDLER, M.D., F.A.C.P., Clinical Professor of Medicine (Gastroenterology), College of Medical Evangelists, Los Angeles. 395 pages. $7.75. New York, Grune & Stratton, 1957.

The title is well chosen as this handbook covers the field rather completely. In the preface Dr. Schindler states that the book has been written specifically for the general practitioner and the internist. It is excellent as an index of differential diagnosis, but the internist probably would be more interested in a more detailed text.

The introductory chapters on gastrointestinal symptomatology related to disease of other organ systems, general etiology, and examination are especially good. The bibliography has been omitted to conserve space.

For those interested in brief discussions of gastrointestinal subjects highlighted by personal opinions of an elder statesman in gastroenterology, the text is highly recommended.

—O. Roger Hollan, M.D., San Antonio.

Peripheral Circulation in Health and Disease

WALTER REDISCH, M.D., F.A.C.P., Associate Professor of Clinical Medicine, New York University College of Medicine, and FRANCISCO F. TANGEO, M.D., Assistant Professor of Medicine, University of the Philippines Medical School, Manila, and Research Fellow, New York University College of Medicine. Special section by R. L. DEC. H. SAUNDERS, M.D., F.R.S.E., Professor and Head of the Department of Anatomy, Dalhousie University Medical School, Halifax, Nova Scotia, and Associates. 154 pages. $7.75. New York, Grune & Stratton, 1957.

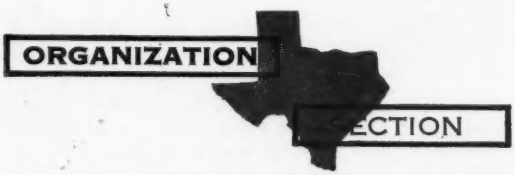
This thoroughly up-to-date text on peripheral circulation will be found useful to both the specialist, who limits himself to this condition, and the general practitioner. It is divided into five parts, the first of which deals with the basic concepts of peripheral blood flow as now understood. Part 2 concerns the pathological changes altering peripheral blood flow. Part 3 is a unique approach to the problem of treatment in that it is based upon the physiological responses brought about by the pathological alterations of peripheral blood flow. In part 4, both the medical and surgical aspects of treatment are thoroughly discussed as well as the various complications relating to its management. Part 5 relates an extremely interesting piece of work carried on by the authors with regard to the arterial and venous vascular beds found in the musculature of the human body. The normal alterations from age and the changes brought about by pathology are taken into consideration. This work, well illustrated by radiographs and microradiographs, will be helpful to anyone interested in this problem.

The thought provoking concepts drawn from these studies are worthy of deepest consideration with regard to the understanding of the basic physiology and pathology of the many diseases affecting the vascular system.

—J. C. Hohf, M.D., Victoria.

Ciba Foundation Colloquia on Endocrinology; Volume 10: Regulation and Mode of Action of Thyroid Hormones

Editors for the Ciba Foundation, G. E. W. Wolstenholme, O.B.E., M.A., M.D., B.Ch., and Elaine C. P. Millar, A.H.W.C., A.R.I.C. 311 pages. 114 illustrations. $8.50. Boston, Little, Brown and Company, 1957.



★ American Medical Association

AMA to Sponsor Health Conference

The American Medical Association's Council on Industrial Health will sponsor the eighteenth annual Congress on Industrial Health, January 27-29 in Milwaukee. Maintaining high standards of health in industry will be the major topic of the congress to be attended by physicians, nurses, industrial hygienists, engineers, and others interested in the field.

Panelists will discuss recent developments in industrial health programs and various aspects of immunization programs in industry at a special session co-sponsored by chairmen of state medical society committees on industrial health. The following three technical sessions will be featured: (1) general aspects of disability evaluation; (2) industrial dermatitis, causes and evaluation of disability; (3) low back pain, cause, treatment, evaluation of disability, rehabilitation.

County Society Survey Results Available

A booklet giving results of a questionnaire sent to county medical societies concerning their activities and programs has been issued by the American Medical Association's Council on Medical Service. Copies are being sent to state and county societies and may be had upon request from the council. The booklet is entitled "1957 Nationwide Survey on County Medical Society Activities."

★ Texas Medical Association

Executive Council To Convene January 19

The week end of January 18-19 will be an active one at the Texas Medical Association headquarters building in Austin. In preparation for the Executive Council session on Sunday morning, January 19, at 9 o'clock, many of the Association's boards, councils, and committees will meet Saturday.

Beginning Saturday morning, the seventh annual Conference of County Medical Society Officials and Symposium on Legislation will be in session; and the Association's third Indoctrination Program for new and transfer members will be held concurrently. The groups will join for talks by three noted guest speakers: Kenneth McFarland, Ph.D., Topeka, Kan., educational consultant of General Motors Corporation, who will speak on "Ropes of Gold"; Dr. J. Lafe Ludwig, Los Angeles, a member of the Committee on Legislation of the American Medical Association, whose subject is to be "The Evolution of Social Security and Its Impact Upon Medicine"; and James G. Roberts, Dallas, manager of the Southwestern Division, Chamber of Commerce of the United States, whose talk will be on "The Medical Man and the Incentive System."

Physicians and their ladies will be guests of the Association for luncheon in the headquarters building Saturday, and a hospitality hour will be given at the Driskill Hotel at 6:30 o'clock that evening.

Conference on Physicians and Schools

The second statewide Conference on Physicians and Schools, sponsored by the Committee on School-Physician Relationships of the Texas Medical Association, in cooperation with the Texas Education Agency and the Texas State Department of Health, will be held in Austin, January 7-8. The following will be included on the program:

Tuesday, January 7, afternoon program, 4:30 p. m.—Registration. Evening program, 7 p. m.—Conference banquet, L. P. Sturgeon, director of public relations, Texas State Teachers Association, Austin, speaker.

Wednesday, January 8, morning program, 8:30 a. m.—Opening of general session, outline of scope and intent of conference by representatives of sponsoring groups. Panel discussions: Mental Health in the Classroom, Advisory Health Councils and the Schools, Role and Responsibilities in School Health, Health Problems of Pupils and School Personnel, and Emergency Care and Communicable Disease Control.

Noon—General conference luncheon, Fred V. Hein, Ph.D., consultant in health and fitness, Bureau of Health Education, American Medical Association, Chicago, speaker. Afternoon program, 2 p. m.—Panel discussions: School Health Services—A Part of the School Health Program, Cooperative Efforts in Local Communities, Safety and Accident Prevention, The Physician and Physical Education, and Health Aspects of School Bus Transportation.

Dr. Jay J. Johns, chairman of the Committee on School-Physician Relationships, urges all members of the Association, especially members of county society committees set up to improve relations between physicians and schools, to attend this meeting.

Hotel Reservations For Annual Session

Reservations for hotel bedrooms for the Texas Medical Association annual session (Houston, Saturday-Tuesday, April 19-22) will be taken beginning January 1.

Hotels available to accommodate members include:

Shamrock Hilton Hotel, Main at Holcombe Boulevard.
Rice Hotel, Main and Texas.
Warwick Hotel, 5701 Main.
William Penn Hotel, 1423 Texas.
Ben Milam Hotel, 1521 Texas.
Lamar Hotel, 804 Fannin.
Sam Houston Hotel, 1119 Prairie.
Texas State Hotel, 720 Fannin.
Hotel Plaza, 5020 Montrose Boulevard.
Town House, 3011 Buffalo Drive.
Algiers Hotel (Negro), 2412 Blodgett.

The following motels are available:

Alamotel Court, 8700 S. Main.
Braeswood Motel, 2116 Holcombe.
Buffalo Inn Hotel, 9051 S. Main.
Carlon Courts, 8000 S. Main.
Grant Motel, 8200 S. Main.
Nomad Motor Hotel, 10000 S. Main.
Plaza Motel, 1700 Old Spanish Trail.
Pioneer Motel, 2902 Old Spanish Trail.
Rainbow Inn Motel, 3713 Old Spanish Trail.
Ranger Motel, 2916 Old Spanish Trail.
St. Francis Courts, 3615 Old Spanish Trail.
Sun Valley Hotel, 1310 Old Spanish Trail.
Wallcroft Gardens, 1857 Old Spanish Trail.
Western Skies No. 1, 2806 Old Spanish Trail.
King Motel, 9101 Main.
Navarro Motel, South Main Street Road.

General membership should address reservations to: Hotel Managers Association of Houston, P. O. Box 2371, Houston 1.

A block of rooms at the Shamrock Hilton Hotel has been reserved for the official family, guest speakers, and exhibitors. Reservation cards have been sent to officers, committee members, and guest speakers. After March 1, rooms held for the Texas Medical Association's official family will be made available for general assignment.

Most Texas Medical Association activities will center in the Shamrock Hilton Hotel, as will most other scientific events. Meetings of the Woman's Auxiliary will be held at the Rice Hotel.

(Cut out and mail to Hotel Managers Association of Houston, P. O. Box 2371, Houston 1.)

REQUEST FOR
HOTEL RESERVATION

HOTEL OR MOTEL

Please make the following reservation for the period of the Texas Medical Association annual session in Houston and confirm:

1st Choice_____

2nd Choice_____

3rd Choice_____

Number and Type of Accommodation:
☐ Single Bedroom ☐ Twin Bedroom ☐ Double Bedroom

Other (specify)_____

Arriving: Date_____ Hour_____

Departing: Date_____ Hour_____

Signed_____

Street_____

City and State_____

Conference of County Medical Society Officials and Symposium on Legislation

Texas Medical Association Headquarters Building

Austin, January 18, 1958

Morning Program, 10:30 a. m.

Keynote.—DR. DENTON KERR, Houston, President, Texas Medical Association.

Ropes of Gold.—KENNETH MCFARLAND, Ph.D., Topeka, Kan., Educational Consultant, General Motors Corporation.

Panel Discussion: Increasing the Effectiveness of County Societies.—DR. R. MAYO TENERY, Waxahachie, Secretary, Board of Councilors, Moderator.

DR. MCFARLAND

Administrative Responsibilities of Officers; Essential Committee Activity.—DR. CARLOS E. FUSTE, Alvin, Councilor, District 8.

Planning Programs for Society Meetings.—DR. TRAVIS SMITH, Abilene, Councilor, District 13.

Stimulating Greater Attendance at Meetings.—DR. C. E. OSWALT, JR., Fort Stockton, Councilor, District 1.

The County Society's Role in Determining State and National Policies; Issues Confronting State Delegates in 1958.—DR. CHARLES P. HARDWICKE, Austin, Speaker, House of Delegates.

Luncheon, 12:30 p. m.

Afternoon Program, 2:00 p. m.

Call to Order.—DR. M. O. ROUSE, Dallas, Chairman, Texas Delegates to the American Medical Association.

The Evolution of Social Security and Its Impact Upon Medicine.—DR. J. LAFE LUDWIG, Los Angeles, Committee on Legislation, American Medical Association.

DR. LUDWIG

Panel Discussion: Key Legislation of Medical Importance in the 1958 Session of Congress.—DR. G. W. CLEVELAND, Austin, Chairman, Council on Medical Jurisprudence, Moderator.

Social Security Coverage for Doctors.—DR. JOHN M. SMITH, JR., San Antonio, Council on Medical Jurisprudence.

The Jenkins-Keogh Bills—Their Interest to Doctors and to 10 Million Self-Employed.—DR. ROBERT D. MORETON, Fort Worth, Council on Medical Jurisprudence.

Health Insurance for Civil Service Employees; Federal Aid for Medical Research and Medical Teaching Facilities; Reinsurance; and Bills Affecting VA Medical Care.—DR. JAMES W. RAINER, Odessa, Council on Medical Jurisprudence.

Introduction: DR. HOWARD O. SMITH, Marlin, President-Elect.

The Doctor and the Incentive System.—JAMES G. ROBERTS, Dallas, Manager, Southwestern Division, Chamber of Commerce of the United States.

MR. ROBERTS

Evening Program, 6:30 p. m.

Hospitality Hour.—Driskill Hotel.

Indoctrination Program

Texas Medical Association Headquarters Building

Austin, January 18, 1958

Morning Program, 9:30 a. m.

Welcome.—DR. DAVID W. CARTER, JR., Dallas, Vice-President.

The Texas Medical Association—An Accounting of Stewardship—What Happens to Your $50?—DR. R. W. KIMBRO, Cleburne, Chairman, Board of Trustees.

American Medicine: Its Objectives, Its Programs, and Its Problems.—C. LINCOLN WILLISTON, Austin, Executive Secretary.

A Message from the President.—DR. DENTON KERR, Houston, President.

Ropes of Gold.—KENNETH MCFARLAND, Ph.D., Topeka, Kan., Educational Consultant, General Motors Corporation.

Medical Ethics Considerations in the Practice of Medicine.—DR. FRANKLIN W. YEAGER, Corpus Christi, Chairman, Board of Councilors.

Serving the Doctors of Texas.—DONALD M. ANDERSON, Austin, Assistant Executive Secretary.

Luncheon, 12:00 noon.

Afternoon Program, 1:15 p. m.

Call to Order.

Medical Economics Considerations in the Practice of Medicine.—DR. HARVEY RENGER, Hallettsville, Chairman, Council on Medical Economics.

Voluntary Prepayment Health Insurance.—DR. ROY T. LESTER, Dallas, Medical Director, Blue Cross-Blue Shield of Texas.

The Evolution of Social Security and Its Impact Upon Medicine.—DR. J. LAFE LUDWIG, Los Angeles, Committee on Legislation, American Medical Association.

Workmen's Compensation Laws.—SMITH PETTIGREW, Dallas, Medical Coordinator, Texas Employers' Insurance Association.

Legal Aspects of Medical Practice; Malpractice and How to Avoid It.—PHILIP R. OVERTON, Austin, General Counsel.

The Doctor and the Incentive System.—JAMES G. ROBERTS, Dallas, Manager, Southwestern Division, Chamber of Commerce of the United States.

Evening Program, 6:30 p. m.

Hospitality Hour.—Driskill Hotel.

The Indoctrination Program is for provisional members of the Texas Medical Association, who may attend the program any time during a two year period. The next programs will be presented in Houston at the annual session April 22 and in Austin September 6.

★ District Societies

Fourth District Society Convenes

Meeting in Brownwood on November 7, members of the Fourth District Medical Society were greeted first by the mayor, Murray Wilner, and then heard the following program:

Urticaria—Dr. C. H. McCuistion, Austin.
Endometriosis and Infertility—Dr. E. K. Blewett, Austin.
Traumatic Injuries of the Face—Dr. Mark L. Lemmon, Dallas.
Emergency Management of Burns of Difficult Sites—Dr. Lemmon.
Differential Diagnosis of Hypertension—Dr. William J. Block, San Antonio.
Surgical Treatment of Jaundice—Dr. M. Bradfield Oxford, San Antonio.
Peripheral Vascular Disease—Dr. Block.
Surgical Management of Peripheral Vascular Disease—Dr. Oxford.

Officers of the society for 1958 are Dr. O. H. Chandler, Ballinger, nominee for Councilor; Dr. Fred D. Spencer, Brownwood, president; Dr. Joe R. McFarlane, Brownwood, vice-president; and Dr. W. Lacey Smith, San Angelo, secretary. The 1958 meeting will be held in San Angelo.

Tenth District Has Fall Program

The Tenth District Medical Society held its fall meeting at the Port Arthur Country Club, Port Arthur, November 3. Dr. C. W. Castle, Liberty, presided at the scientific program. This included talks on "The Status of Cholesterol and Unsaturated Fatty Acids in Atherosclerosis" by Dr. Taylor C. Walker, Beaumont, and "Tranquilizing Drugs in Office Practice" by Dr. C. F. Adkins, Beaumont.

A business meeting and dinner with the Auxiliary followed. New officers elected include Dr. B. F. Pace, Beaumont, president, and Dr. W. J. Poshataske, Silsbee, secretary-treasurer.

Fifteenth District and GP's Meet

The Fifteenth District Medical Society met in Marshall, November 10, in conjunction with the postgraduate seminar conducted for area members of Texas Academy of General Practice by the faculty of Southwestern Medical School of the University of Texas, Dallas. Speakers included Dr. John S. Chapman, Dr. Herman I. Kantor, and Dr. William O. Tschumy, Jr.

Dr. Denton Kerr spoke at the luncheon on "The Doctor's Positive Program."

Newly elected officers are Dr. Charles Wise, Naples, president; Dr. A. J. Woods, Jefferson, vice-president; and Dr. George Bennett, Marshall, secretary-treasurer.

★ County Societies

News Briefs from Minutes Of County Medical Societies

The following news items come from the minutes of various county medical society meetings:

The editor of the *Waco News Tribune* requested that members of the *McLennan County Society* write a weekly health article to be published in the paper. The society unanimously agreed to back such an article. The society also agreed to provide some type of preschool training for children with deficient hearing and vision. Members voted to allow the local press to quote by name the president, secretary, and chairman of the public relations committee when any news item concerning the medical profession and problems of civic interest was given to the papers.

Dr. Daniel R. Reilly announced to the *Tom Green-Eight County Society* at its November meeting that he was able to obtain penicillin for oral or parenteral use in rheumatic fever prophylaxis and that it would be available free to members of the society.

Members of the *San Patricio-Aransas-Refugio Counties Society* have held meetings with both lawyers and pharmacists of the three counties as guests of honor. The purpose of these meetings was to initiate a program of better relationship between the doctors and other professional groups.

Societies Build Good Relationships

Most of the Texas county medical societies meet with other professional groups throughout the year and three have established definite programs for building good relationships with other groups as indicated from returns of a questionnaire sent from the Texas Medical Association's headquarters in Austin.

Each of the three societies which stated that they have definite programs for establishing good relationships listed different methods for carrying out this program. *Bexar County Society* builds good relations by engaging doctors to speak at various organizations, by meeting with military physicians, and by holding press entertainment parties. The *Dallas County Society* maintains an interprofessional relations committee to create good public relations with other professional groups. The officers and committees of this society often meet with the Bar Association, the press, pharmaceutical groups, nurses, and hospital councils. The *Travis County Society* meets twice annually with other organizations. A joint meeting of the society with the Travis County Bar Association, planned by the society's program committee, was one of the most effective meetings.

Numerous societies often meet with other groups even though they have no definite program. The *Bastrop-Lee Counties Society* meets once a year at a dinner with pharmacists and dentists. At the December meeting of the society, donations of new and used clothes and games are given patients of the Austin State Hospital. The *Comal County Society* meets with other organizations three or four times a year. The society has been successful with its inoculation program for school children each year. Members meet with the school board to urge that compulsory diphtheria-pertussis-tetanus and poliomyelitis shots be given to school children. The *McLennan County Society* last year had an excellent meeting with the military personnel at James Connally Air Force Base. There the program was put on by the military medical staff. In *Nueces County*, the doctors have many contacts with insurance men, including an annual picnic for the two groups. These programs started because of conflict between the doctors and insurance claims adjusters in this county but a good relationship between the groups now exist.

A definite program is being established by the *Webb-Zapata-Jim Hogg Counties Society* with nurses, dentists, pharmacists, and lawyers in this area. The *Washington-Burleson Counties Society* has an annual meeting with the County Tuberculosis Association which is planned by the presidents. A similar meeting is held by the *Hill County Society* and the County Tuberculosis Association. The *Gregg County Society* recently met with the county polio foundation chairman to discuss giving the polio vaccine to

grammar and high school students. The *Tarrant County Medical Society* occasionally has dinner meetings with dentists, press representatives, and legislators.

The *El Paso County Medical Society* recently sponsored a program with the district nurses. The Woman's Auxiliary made arrangements for the meeting, which was held in a private residence. Luncheon was served to nurses, doctors, and wives. Although this was the first of such meetings, the society hopes to make the event an annual affair.

Good Group Relations

The societies listed various groups, ranging from Rotarians to retail druggists, with which they have excellent relationships. Many groups indicated that they have good relations with all organizations in their area or that there is no one group with which they have better relations than another. The press, lawyers, and service clubs were mentioned by most societies as having the best relationship with the doctors. Most of the societies said that there was no particular group with which the physicians in their area had poor relations. A few, however, said that certain organizations and agencies failed to cooperate with the doctors.

The *Bastrop-Lee Counties Society* has excellent relations with pharmacists and dentists. *Bexar County Society's* best relationships exist with the drug travelers associations, retail druggists, and the press. The *Comal County Society* helps plan programs for the P. T. A. and service clubs by giving speeches and has created a very good relationship with these particular organizations. The *Travis County Society* lists attorneys, medical assistants, and the press as the organizations which cooperated the best with the doctors of that county. Travis Society has accomplished this relationship by having joint meetings with attorneys, furnishing speakers to the medical assistants' meetings, and having joint luncheons with the society's public relations committee and the press.

The *Red River* and *Johnson County Societies* listed druggists as being extremely cooperative, whereas businesses cooperate very well with the *Dallam-Hartley-Sherman-Moore Counties Society*. The press has created good relations with the *Lampasas-Burnet-Llano Counties Society, Dallas County Society,* and the *Camp-Morris-Titus Counties Society*. The *Hardeman-Cottle-Foard-Motley Counties Society* and the *McLennan County Society* have created good relations with the service clubs in their counties.

Projects With Other Groups

Many of the county societies answering the questionnaires said that they were engaged in a Salk vaccine project (for school children) with the school officials of their counties. Several others had begun writing doctor's columns and medical editorials in the local paper. The *McLennan County Society* has a weekly medical editorial in the local newspaper written by a different member of the society each week, and the *Travis County Society* has a health column entitled "Your Doctor Speaks" in the local press.

Six forums on matters of medical interest, such as diseases of allergy, cancer, and gastrointestinal disorders, were sponsored by the *El Paso County Medical Society* last year. These forums, open to the public, were held in a downtown location which could accommodate about 200 people, and were publicized in the local newspaper. Doctors of the panel answered questions from the floor after a short introductory talk on each subject.

Officials of the *Nueces County Society* release news items directly to the local newspaper. The society recently cooperated with a television program for muscular dystrophy, aided in the United Fund drive, and put on a show for television and radio on Asian flu. The *Dallas County Society* sponsors a health forum with the newspaper and has two special sections in the newspaper each year. *Gregg County* reviewed lectures on cardiovascular disease in the local paper in conjunction with the drive of the American Heart Association. This society also was co-sponsor with the March of Dimes for polio inoculations for indigents. The *Brown-Comanche-Mills-San Saba Counties Society* cooperated with the public health department in giving school children the Salk vaccine.

In addition to the joint activities and projects listed in the replies to the questionnaire, more than one county society secretary called attention to the building of good professional relations through personal acquaintances and through individual participation of physicians on boards and committees in the community. The public relations chairman of the *Nueces County Medical Society,* Dr. G. M. McCaskey, also pointed out another technique that has paid dividends in better relations with groups with which conflicts arise: "we invite them in to talk to us—we go talk to them."

County Society Programs

Recent programs presented before county medical societies include the following:

Bastrop-Lee Counties Society—"Tranquilizing Drugs," Dr. Walker Reifslager, Austin.

Bexar County Society—"Current State of Knowledge on the Influence of Diet and Related Metabolic Factors to the Incidence and Course of Atherosclerosis," Dr. Frederick Stare, Harvard School of Public Health, Boston; "The Relationship of Circulating Lipids and Lipoproteins to the Disease," Colonel L. J. Milch, San Antonio; "Certain Statistical Aspects of the Disease, Incidents, and Human Populations," Dr. W. F. Taylor, San Antonio; and "Clinical Aspects of the Disease," Dr. Lawrence E. Lamb, San Antonio; "Investigations in the Problems Involving the Gastrointestinal Tract," Dr. A. O. Singleton, Jr., Galveston; and Dr. Fritz Linder, German surgeon, also addressed the society.

Cameron-Willacy Counties Medical Society—"Anticoagulants," Dr. John W. Chriss and Dr. James G. Gabbert, Corpus Christi.

Falls County Society—"Newer Aspects of the Diagnosis and Treatment of Liver Diseases," Dr. Richard D. Haines, Temple; and "Place of Hypnosis in Anesthesia," Dr. Andrew Heinrich, Fort Worth.

The East Harris County Branch of the *Harris County Medical Society* reports a 91.32 per cent attendance record for all of its meetings during the past year.

McLennan County Society—"Subdural Hematoma," Dr. Harry W. Slade, Longview; "Public Relations," Woody Barron, editor of *Waco News Tribune,* Waco; "Segmental Ulcerative Colitis," Drs. W. B. King, M. W. Colgin, and W. H. Granger, all of Waco; and "Pediatric Surgery," Dr. Roy Baskin, Waco.

Hill County Society—"Ideas in Diagnosis," Drs. William C. Tatum, Charles Robinson, and Robert S. Mallard, all of Fort Worth; and "Precancerous Conditions," a motion picture.

Pecos-Jeff Davis-Presidio-Brewster Counties Society—"Medicare," Dr. Roy T. Lester, Dallas.

San Patricio-Aransas-Refugio Counties Society—"Importance of Lawyer-Physician Relationship," Philip Overton, Austin; "Asiatic Flu," Dr. Hardy A. Kemp, Houston; and "The Case of the Doubting Doctor," a motion picture.

Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher Counties Society—"Eosinophilia in the Peripheral Blood and in the Peritoneal Exudate Following Intraperitoneal Administration of Blood in Animals," Dr. John S. Chapman, Dallas.

Travis County Society—Former governor Allan Shivers addressed the society on the need for a third party which would reflect the thinking of those who want to foster individual enterprise, emphasize local governmental rights and duties, and curtail the centralization of power. Three resolutions were adopted by the *Travis County Society* which included one in opposition to the inclusion of physicians under social security, another opposing the construction of more Veterans Administration hospital facilities, and the third opposing the Forand bill to expand the social security program into the medical and hospital care field, which is due for congressional consideration.

Viscardi to Speak At Three Inaugurals

Three of the largest county medical societies in Texas will hear Henry Viscardi, Jr., president of Abilities, Inc., Albertson, N. Y., at their January banquets at which new officers will be installed. Mr. Viscardi will be with the Dallas County Medical Society in Dallas on Tuesday, January 14; Bexar County Medical Society, San Antonio, January 15; and Harris County Medical Society, Houston, January 16.

MR. VISCARDI

One of only three nonmedical recipients of a citation for outstanding service from the American Medical Association, Mr. Viscardi received this honor at the 1957 AMA annual session. Member of the faculty of New York University College of Medicine, New York University-Bellevue Medical Center; member of the board of trustees of Adelphi College, Garden City, N. Y.; and recipient of honorary doctor of laws degrees from Fordham and Long Island Universities, Mr. Viscardi is a member of the National Advisory Council of the Department of Health, Education, and Welfare Division of Vocational Rehabilitation. He has received numerous awards for his work with handicapped persons and is author of an autobiographical book and numerous magazine articles telling of his experience in overcoming physical handicaps himself and helping others to do so.

Subject of Mr. Viscardi's talks before the medical societies will be "America's 192,000 Disabled Doctors and Their 33,000,000 Disabled Patients." In each host city he also will make appearances before civic clubs, speaking on "Humanation—America's Answer to the Russian Satellite."

Dr. Andrew B. Small will be installed as president of the Dallas County Society at the banquet featuring Mr. Viscardi. Master of ceremonies will be Dr. Harold A. O'Brien, retiring chairman of the board of directors. Dr. Glenn Carlson is retiring president. Formally attired dignitaries at the head table will include past presidents wearing their past president's medallions.

In San Antonio, Dr. Charles W. Tennison will take office as president, succeeding Dr. J. B. Copeland. Presidents of a number of local organizations will be guests.

Dr. J. Griffin Heard will serve as president for the coming year in Harris County; Dr. Moise D. Levy will be the outgoing president. Dr. Donald M. Gready will be recognized as president-elect.

Tarrant County Inaugural Banquet.—Tarrant County Medical Society also will hold an inaugural banquet next month, on January 7, in Fort Worth. James C. Worthy, Chicago, vice-president of Sears Roebuck Company, will speak. To be installed as president is Dr. William E. Flood; Dr. James A. Hallmark is the 1957 president.

Harris Medical Society Selects Executive Secretary

John C. Lee, Miami, Fla., the first man with executive leadership training to be named executive secretary of the Harris County Medical Society, assumed his duties in Houston on December 1.

MR. LEE

For the past 5 years, he has served as the executive secretary of the Dade County Medical Association in Miami. He previously served as regional manager for Blue Cross-Blue Shield in Florida. In Miami, he was an active member of the Miami Rotary Club. He also was a member of the board of directors of the better business division of the Chamber of Commerce, health division of the Welfare Planning Council, and Medical Society Executives' Conference. Mr. Lee served in the Air Force, starting as an aviation cadet in 1942 and ending with a commission as a captain.

Mr. Lee is married and has 3 children. He received his education from the University of Florida, Gainesville, and the State University of Iowa, Iowa City.

Harris County Turns Down Branch Organization

The Harris County Medical Society has voted against the establishment of geographical branches with the business of the society being carried on largely by a representative body of delegates from the various branches. The decision was reached October 25 in a Houston meeting at which a report of a special committee authorized to prepare revisions in the by-laws that would have accomplished the reorganization failed of adoption by a vote of 104 for, 85 against (although a majority favored the new plan, a two-thirds vote is necessary to change the by-laws).

The Harris County action in considering a branch society organization was legalized by the adoption last April of amendments to the By-Laws of the Texas Medical Association providing that "component county medical societies having over one hundred members and with congested divided areas may be allowed to establish branch societies" provided that (1) 25 is the minimum membership for a branch society, with such members residing and practicing in the area; (2) at least 80 per cent of members practicing in a semi-isolated section petition for establishment of the branch; (3) approval is by a two-thirds vote of the parent society; (4) approval of the society's action is obtained from the Board of Councilors by a two-thirds vote; (5) only a member of the parent society may be a member of a branch society, and disciplinary jurisdiction remains with the parent society; and (6) the parent society may abolish the branch with approval of the Board of Councilors.

For some years Harris County Medical Society has had an East Harris branch that has held independent scientific meetings, and Jefferson County Medical Society has had two branches, Beaumont and Port Arthur, for certain scientific activities. However, the effort just defeated was the first attempt to effect a basic reorganization of a county medical society in Texas along branch lines. Such societies have been in operation successfully elsewhere in the nation in heavily populated areas.

A mail ballot three years ago resulted in an 80 per cent favorable return on the suggestion that a representative government for Harris County Medical Society be considered.

A special committee consisting of the standing by-laws committee, the president, the president-elect, the six immediate past presidents, and the immediate past and the present Ninth District Councilor was named. Dr. J. Charles Dickson, Houston, was chairman.

The by-law changes recommended by this committee would delegate to a representative body the power to decide policies, make decisions, elect and try members, and carry on other work of the society. This representative body would be made up of officers of the society, representatives-at-large, representatives from branches, and the chairmen of the boards of censors, medical jurisprudence and public relations, and adjudication and medical testimony. The officers and representatives-at-large would be elected by a mail ballot by the entire membership; the representatives from branches by the members of the branches. Boards, commissions, and state delegates would be elected by the representative body. Committees would be appointed by the president with approval of the representative body.

The representative body, according to the proposed by-laws, would meet monthly, with all members welcome to attend but without the right to participate unless invited by the representative body. The society as a whole would meet once a year for installation of officers and at other times for special scientific programs.

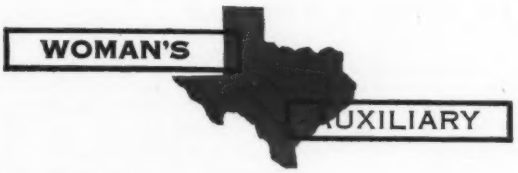
The society would be divided into geographical branches, depending upon location of doctors' offices. Each branch would have its own officers and meet for scientific and business purposes. Each branch would be allowed a sum of money for expenses in the society budget and could pass by-laws not in conflict with county and state by-laws.

A referendum arrangement would permit issues to be put before the entire society membership for mail vote, in which a majority vote would be decisive and binding on the representative body.

In discussion of the proposed reorganization of the Harris society, proponents of the new by-laws pointed out that the society has grown so (1,335 members) that a town hall type of meeting is impossible for transacting business, that an organization appropriate for 750 members breaks down when the society doubles in size. They stated that present voting does not reflect a cross-section of the society, but rather of a small group particularly interested in the given issue and therefore at the meeting. Most business meetings have only about 75 members present so that possibly 40 members can decide issues. Even for controversial subjects, the attendance may be 250 to 300. In a representative form of society government, the proponents pointed out, members might express their opinions to their representatives and share in deciding issues. Members of the East Harris Society have been responsive in attending meetings for scientific programs and to discuss problems later brought before the parent society. As only those with a special interest in an issue come to vote, the society may vote one way at one meeting and another way a month or two later after opinion has been aroused; this instability has caused criticism among laymen, the proponents of the new plan declared. The executive board of 12 persons now carries on work of the society between meetings and makes many decisions; enlarging this executive group into a representative body of 40 to 45 members would provide a broader and more representative base for deciding issues.

Those opposed to the revision of the by-laws indicated in the discussion that it would be impossible under the new plan for the individual member to express himself on questions coming before the society or to vote directly on problems affecting him. The proposed organization would make it possible for a small group of doctors to run the society as a clique. Such an arrangement would be undemocratic and against the American way of life. The proposed system, they said, would lessen interest in the society in that members would feel they had no direct part to play in deciding issues before the society. The present system is working well enough, the opposition stated, so why make a change? Some voting against the measure explained that they did not understand how the plan would work and therefore did not feel they could support it.

Although in rejecting the branch society–representative governing body proposal the Harris County Medical Society took no steps toward reconsideration of such a proposal in the future, some members have expressed the opinion that the general idea, perhaps with modifications, is one which is worthy of further discussion within the next few years.



Baby-Sitters Trained As Part of Safety Program

"GEMS" is the title of the organization aided by members of the Woman's Auxiliary to the Texas Medical Association which provides trained baby-sitters to serve as "good emergency mother substitutes" as a part of the safety program. A course outline has been prepared and is available to inform sitters and parents about their respective responsibilities in child care.

The Conference on Physicians and Schools, to be held in Austin January 7-8, will provide an excellent opportunity for the doctor and his wife to become better qualified as health leaders in their local schools. Sooner or later a doctor's wife is called upon to serve as health chairman, president, or board member for the school. In any case she is considered an authority or counsel in health matters, and it would be to her great advantage to arm herself with information about health activities in schools throughout the nation and to understand better the problems confronting school administrators in health matters.

It will be a wise physician who will be certain that his wife joins him in attending the Symposium on Legislation, also in Austin, January 18. If he is unable to leave his practice, it is important that his wife be present to hear the presentations that she may interpret latest legislation for him and the lay public with whom she is in daily contact.

Projecting the philosophy of "GEMS"—that of trained substitutes—the doctor's wife who makes it her business to accept the responsibilities of being a spokesman for her hus-

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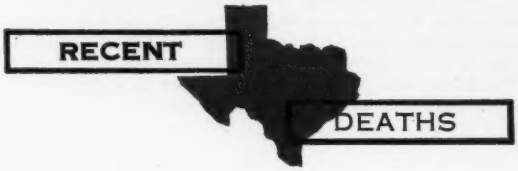
Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

band and his profession will be an invaluable aid throughout her busy days.

Auxiliary members are eager to accept the challenge, as the purpose of their organization as defined includes "serving to supplement or take the place of."



DR. JOHN Y. BATTENFIELD

Dr. John Young Battenfield, Snyder, Texas, died September 17, 1957, of a heart attack.

Dr. Battenfield was born October 24, 1912, in Pryor, Okla., and was the son of John Young and Ruth (Sims) Battenfield. After receiving his preliminary education in Granite, Okla., he was graduated from the University of Oklahoma, Norman, in 1934 and the University of Oklahoma School of Medicine, Oklahoma City, in 1938. He served his internship at the United States Marine Hospital, Seattle, and did postgraduate work (resulting in a master of public health degree) at Johns Hopkins University, Baltimore, and at the United States School of Tropical Medicine, Washington. He was a member of the Oklahoma State Health Department for 4 years before serving as a major in a parachute infantry division of the United States Army in Panama, North Africa, and Europe, where he was presented the Bronze Star and other medals.

DR. JOHN Y. BATTENFIELD

After the war he was medical director at the University of Oklahoma before going to the Firestone Hospital, Cape Palmas, Liberia, which country awarded him the Gold Medal of Honor. Later he became director of medical services for the government of Guam in Agana, and then was physician in charge for the International Bechtel Company in Jeddah, Saudi Arabia. In 1952, he went to Snyder where he practiced until his death.

He was a member of the Borden-Dickens-Garza-Kent-King-Scurry-Stonewall Counties Medical Society, Texas Medical Association, and American Medical Association. He was also a member of the Royal Society of Tropical Medicine, Industrial Medical Association, and the Railway Surgeons Association. He belonged to the Rotary Club, Veterans of Foreign Wars, and the Methodist Church.

Dr. Battenfield was a partner in a hunting ranch near Snyder and raised game birds for the ranch.

Dr. Battenfield and Miss Jeannine Patras were married in Cannes, France, on July 18, 1945. Survivors include his wife; three children, Myriam, Lila, and Edward; and a sister, Mrs. John Haverty, San Francisco.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

DR. WARREN E. MASSEY

Dr. Warren Eugene Massey, Dallas, Texas, died of coronary artery disease September 12, 1957.

He was born November 4, 1895, in Falls County, and was the son of Walter and Margaret Angeline Massey. After being graduated from Rosebud High School, he attended the University of Valparaiso, Ind., and was graduated from Southern Methodist University. He also was graduated from Baylor University College of Medicine in 1920, and served his internship and residency at Baylor Hospital. He served in the Naval Reserves from 1917 to 1921.

In practice in Dallas since 1923, Dr. Massey taught at Baylor University College of Medicine from 1923, when he was an assistant in obstetrics, until 1943, at which time he held the position of full professor. He then became clinical professor of obstetrics at Southwestern Medical School of the University of Texas and taught there until 1955. Dr. Massey was a consultant in obstetrics and gynecology at Baylor University Hospital. He also served on the courtesy staff of the Methodist, St. Paul, and Parkland Hospitals. He also had written numerous papers on obstetrics and gynecology.

DR. WARREN E. MASSEY

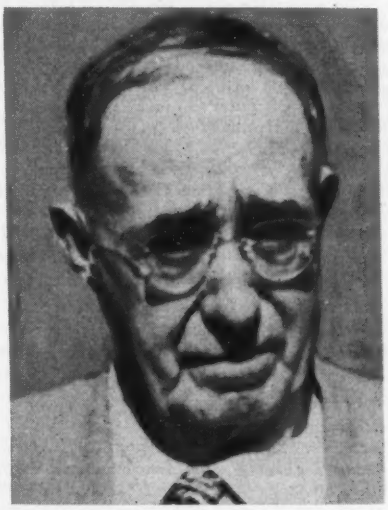
He was a member of the Texas and American Medical Associations through the Dallas County Medical Society. He served as chairman of the Section on Obstetrics and Gynecology for the 1943 annual session of the Texas Medical Association, and was elected an honorary member of the Association in 1956. He also was a fellow of the American College of Surgeons, and a member of the Dallas-Fort Worth Obstetrics and Gynecology Society, Southern Medical Association, Dallas Southern Clinical Society, and American Society for the Study of Sterility. He belonged to the Phi Rho Sigma fraternity, Masonic Lodge, and Knights Templar.

Dr. Massey and Miss Dorothea Carnes were married January 27, 1929. Survivors include his wife; two daughters, Miss Mary Massey and Mrs. William C. Turner, both of Dallas; two brothers, J. T. Massey of Anna, Collin County, and William I. Massey of San Francisco; and one granddaughter.

DR. JAMES L. DUBOSE

Dr. James Lafayette DuBose, Wells, Texas, died August 24, 1957, in a Jacksonville hospital of cancer of the colon.

Dr. DuBose, born December 11, 1877, in Jasper, was the son of Joe and Susan DuBose. He received his preliminary education at schools in Jasper and was graduated from the old Gate City Medical College, Texarkana, in 1904. He also did postgraduate work at the Memphis Hospital Medical College, Tenn., and Tulane University, New Orleans. He practiced in San Augustine before moving to Wells where he was the only doctor.



DR. JAMES L. DUBOSE

He was a member of the American Medical Association, Texas Medical Association, and Cherokee County Medical Society. He had been president of his county society and since 1956 had been an honorary member of the state Association. Dr. DuBose belonged to the Masonic Lodge and to the Baptist Church.

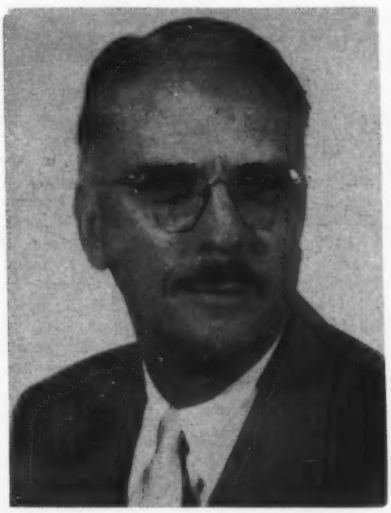
Dr. DuBose and Miss Mamie G. Ward were married at Cottondale, Ala., in 1916. He is survived by his wife, four sons, W. C. DuBose, Waco; J. H. DuBose, Brownsboro; J. D. DuBose, Wells; and C. W. DuBose, Corsicana; and a sister, Mrs. Roxie Stroud, Hemphill.

DR. WILLIAM M. LIVELY, JR.

Dr. William McCain Lively, Jr., Dallas, Texas, died October 6, 1957, in Colorado Springs, Colo., from an accidental drowning.

Dr. Lively, the son of Dr. William McCain and Ola (Baugh) Lively, was born September 2, 1908, in Dallas. He received his preliminary education in Dallas public schools and was graduated from Southern Methodist University in 1931 and Baylor University College of Medicine in 1936. He served his internship at Jackson Memorial Hospital, Miami. Dr. Lively, who stayed in Dallas during his entire career, began practicing with his father and continued in active practice until his death. He was a captain and flight surgeon of the Air Transport Command in the South Pacific during World War II.

He was a member of the Texas Medical Association and



DR. WILLIAM M. LIVELY, JR.

American Medical Association through the Dallas County Medical Society. He was a member of the county, state, and national branches of the American Academy of General Practice, serving as treasurer of the county group in 1956, and on the credentials committee of the national organization. He was on the staff of the Methodist Hospital. He belonged to the Methodist Church, Oak Cliff Country Club, Masonic Lodge, and Shrine.

Dr. Lively and Miss Bessie Pinkoson were married January 13, 1938, at Stuart, Fla. She survives, as do three children, Miss Susie Lively, William McCain Lively, and Charles Richard Lively, all of Dallas; a brother, C. B. Lively, Dallas; and two sisters, Mrs. H. D. Yeargan, Dallas, and Mrs. Robert Porter, Sherman.

DR. THOMAS M. PRIDEAUX

Dr. Thomas Moore Prideaux, Lubbock, Texas, died October 12, 1957, of cerebral hemorrhage in Washington, D. C., where he was attending George Washington University on a surgery fellowship.

Born on May 27, 1920, in Lott, he was the son of Thomas Robert and Mary Donna (Moore) Prideaux. He attended grade and high schools in Lubbock, received his bachelor of arts degree from Texas Technological College, Lubbock, and

received his medical degree from Tulane University School of Medicine, New Orleans. Dr. Prideaux interned and took his residency at Scott and White Hospital, Temple. He served for 2 years in the United States Navy with the rank of lieutenant, junior grade. In 1950, he began practice in Haskell. Later in 1950, he moved to Lamesa, where he operated a clinic until 1956.

He was a member of the Texas Medical Association and the American Medical Association through the Dawson-Lynn-Terry-Gaines-Yoakum Counties Medical Society, which he had served as president and secretary. He also was a member of the American Academy of General Practice and belonged to the Presbyterian Church.

Surviving Dr. Prideaux are his wife, the former Miss Norma Jean Spencer of Ralls, whom he married October 9, 1943, in Lubbock; two children, Judith Lynn and Thomas Spencer Prideaux; a sister, Mrs. J. M. Moxley; and his parents, all of Lubbock.

DR. JAMES C. WALLACE, SR.

Dr. James Carroll Wallace, Sr., Beaumont, died August 6, 1957.

Dr. Wallace was born September 25, 1890, in Beaumont, and was the son of Carroll and Roxie (Simpson) Wallace. He attended Charlton Pollard High School in Beaumont and received his bachelor of arts degree from Wiley College, Marshall, in 1912. After being graduated from Howard University School of Medicine, Washington, D. C., in 1916, Dr. Wallace interned at Kansas City General Hospital, Kansas City. He did postgraduate work at the Baylor University College of Medicine, Houston; Flint Goodridge Hospital of Dillard University, New Orleans; and the InterState Post Graduate Assembly. He also served with the Army Medical Corps in World War I as first lieutenant.

He began practice in Beaumont in 1919 and there he continued active practice until his death.

Dr. Wallace was a member of the Texas and American Medical Associations through the Jefferson County Medical Society. He also was a member of the Southeast Texas Medical, Dental, and Pharmaceutical Society, which he served as a past president, the board of the Beaumont Tuberculosis Association, the executive committee of the Lone Star State Medical Society, and the National Medical Association. He also was a member of the Goodwill Council, St. Paul Methodist Church, and the Neches Street Branch of the YMCA, which he served as member of the board and as president for 13 years. He was voted the outstanding citizen by the YMCA in 1955. He was supervisor of the Central Hospital Clinic in Beaumont.

Mrs. Wallace died January 16, 1951. Survivors include four children, Dr. Charles R. Wallace, S. N. Wallace, and William C. Wallace, Beaumont, and James C. Wallace, Jr., D.D.S., Chicago; his mother, Mrs. Roxie Patillo, Beaumont; two brothers, Henry S. Alexander, Los Angeles, and Jack Patillo, Beaumont; and two sisters, Mrs. Marguerite Johnson and Mrs. Cleo Love, both of Beaumont.

DR. JAMES C. WALLACE, SR.

DR. EVERETTE L. DYE

Dr. Everette Lee Dye, Jr., Plainview, Texas, died in a local hospital, November 5, 1957, of a heart attack.

Born June 4, 1907, in Tulia, Dr. Dye was the son of Dr. Everette Lee and Minnie (Donohoo) Dye. He attended Plainview High School and Wayland College in Plainview and was graduated from Stanford University, Palo Alto, Calif., in 1927 and Baylor Medical College, Dallas, in 1931. He served his internship at the Roper Hospital, Charleston, S. C., and then began practice in Plainview where he continued until his death except for 3 years he served as a captain with the Air Force Medical Corps at Victoria in World War II.

Dr. Dye was a former president and secretary of the Hale-Floyd-Briscoe-Swisher Counties Medical Society, and medical adviser, at the time of his death, to the Hale County Chapter of the American Cancer Society. He belonged to the American Medical Association, Texas Medical Association, Texas Academy of General Practice, and American Academy of General Practice. He was affiliated with Alpha Mu Pi Omega medical fraternity and Theta Chi social fraternity. He served on the Plainview Independent School Board and at one time was active in the Chamber of Commerce and Board of City Development. Dr. Dye was a licensed amateur radio operator.

Dr. Dye and Dr. Mary Alice Ramsdell, formerly of Austin, were married March 14, 1931, in Dallas. Dr. Dye is survived by his father, now of Manhattan, Kan.; wife; and two children, Lee, stationed with the Army in Paris, France, and Susannah, a student at the University of Texas.

DR. HUGH W. HARDY

Dr. Hugh Winfred Hardy, Jasper, Texas, died July 14, 1957, in Galveston.

Born February 20, 1887, in Newton, Texas, Dr. Hardy was the son of William W. and Mary (Nimitz) Hardy. He attended the University of Texas and Tulane University, and was graduated from Tulane University School of Medicine in 1909. After serving his internship at the Charity Hospital in New Orleans, Dr. Hardy practiced in Newton until 1917. He then went to Jasper where he stayed until his retirement about 4 years ago.

He was a member of the Texas and American Medical Associations through the Jasper-Newton Counties Medical Society.

Dr. Hardy was married July 11, 1909, in Welsh, La., to Miss Olive Burke Singleton, who died April 6, 1951.

Survivors include a daughter, Mrs. James L. Coffee, Baton Rouge; his mother, Mrs. W. W. Hardy, Newton; and two sisters, Mrs. Roy Koenig, Kerrville, and Mrs. V. Clay, Woodville.

DO NOT CIRCULATE

TEXAS State Journal of Medicine

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IN THIS ISSUE . .

Malignant Neoplasms In Children

Conference for Officers, Legislative Symposium, Indoctrination Program

The Hippocratic Oath

A New Book—from Saunders

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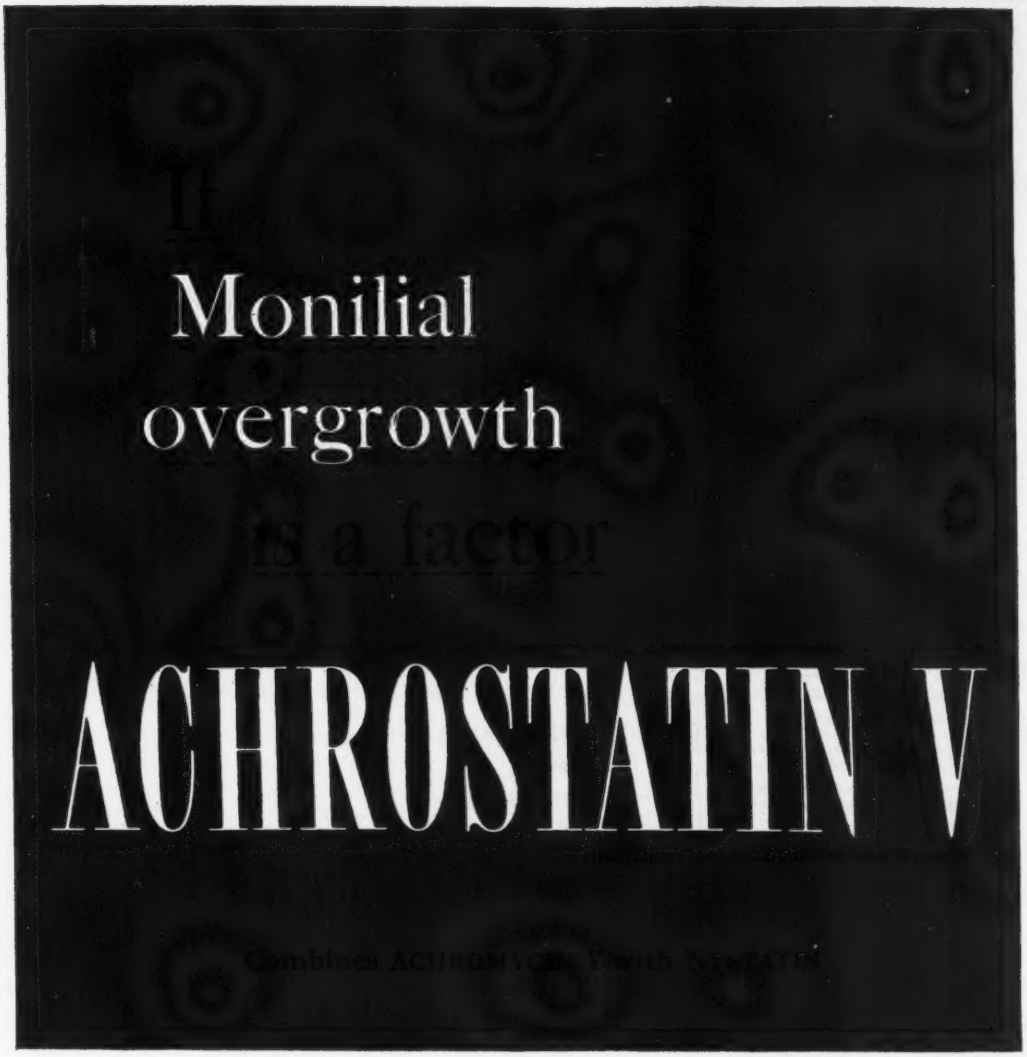

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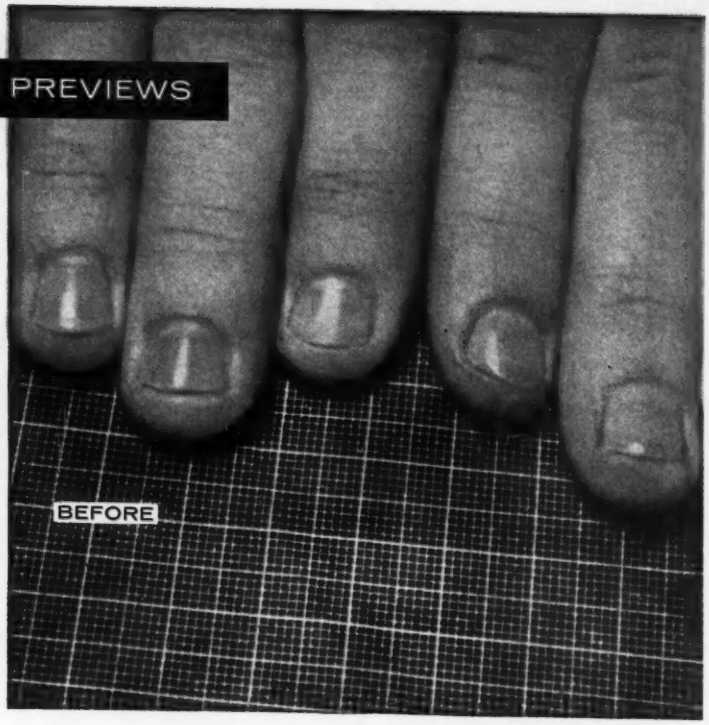

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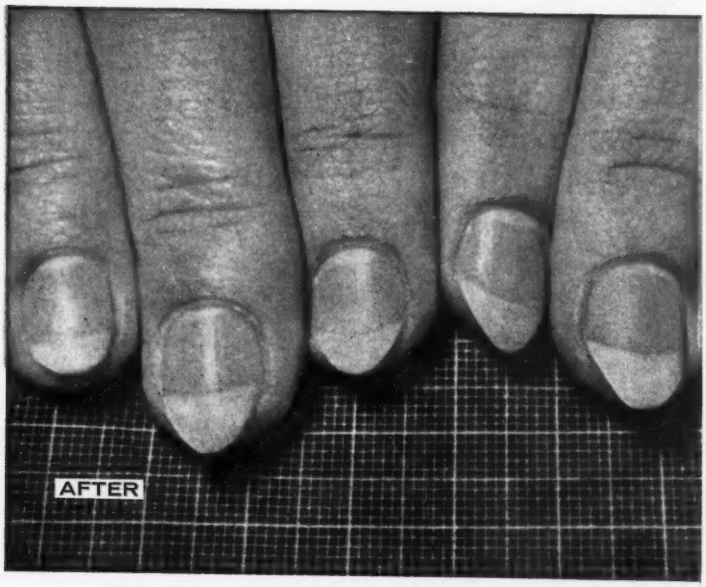

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Evidence continues to accumulate verifying the effectiveness of Gelatine in the treatment of brittle fingernails. Investigators report that the nails show objective evidence of improvement.[1,2,3,4] Furthermore, patients often volunteer that their nails "feel stronger," "look smoother," and "I can pick up things without them hurting."[1] Evidently the subjective sensations associated with improvement are nearly as important to some patients as the positive physical change in the nails' appearance.

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See the chart below for a summary of the effect of Knox Gelatine in brittle fingernails as observed in all published reports. Photographic evidence of improvement, much of it in color taken before and during treatment, is available for most of the patients.[1,2,3] Please note, however, that where Gelatine was used in the treatment of pathological conditions associated with brittle fingernails only in psoriasis did the data show definite improvement.[1,3,4]

Response to Gelatine in Brittle Fingernails

References	Dosage	Duration of treatment	No. patients w/ brittle nails	No. patients improved	No. patients w/ brittle nails and other pathology	No. patients improved
1. Rosenberg, S., Oster, K. A., Kallos, A. and Burroughs, W.: *A.M.A. Arch. Dermat* 76:330, (September) 1957	7 Gm./ day	3 months	50	43 (86%)	32[a]	9
2. Schwimmer, M. and Mulinos, M.G.: *Antibiot. Med. & Clin. Therapy* 4:403, (July) 1957	7.5 Gm./ day	11-16 weeks	18	15 (83%)		
3. Rosenberg, S. and Oster, K. A.: *Conn. State Med. J* 19:171, (March) 1955	7 to 21 Gm./day	15 weeks	36	26[b] (72%)		
4. Tyson, T. L.: *J. Invest. Dermat.* 14:323, (May) 1950	7 Gm./day	13 weeks	12	10[c] (83%)		
Totals	7-21 Gm.	11-16 weeks	116	94 (81%)	32	9 (28%)

a. Gelatine improved psoriatic nails in 5 out of 12 cases. In onychomycosis and other pathological conditions of the nail it was of no appreciable help.

b. Of the failures, 2 had congenital disease of the nails, 3 were diabetics and 3 took the medication for less than one month.

c. One patient with psoriasis and arthritis and one patient with psoriasiform nail changes showed improvement in 2 and 3 months respectively.

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(1) Asung, C. L.; Charcowa, A. I., and Villa, A. P.: Sea View Hosp. Bull. *16*:80, 1956. (2) Asung, C. L.; Charcowa, A. I., and Villa, A. P.: New York J. Med. *57*:1911 (June 1) 1957. (3) Report on Field Screening of Nostyn by 99 Physicians in 1,000 Patients, June, 1956.

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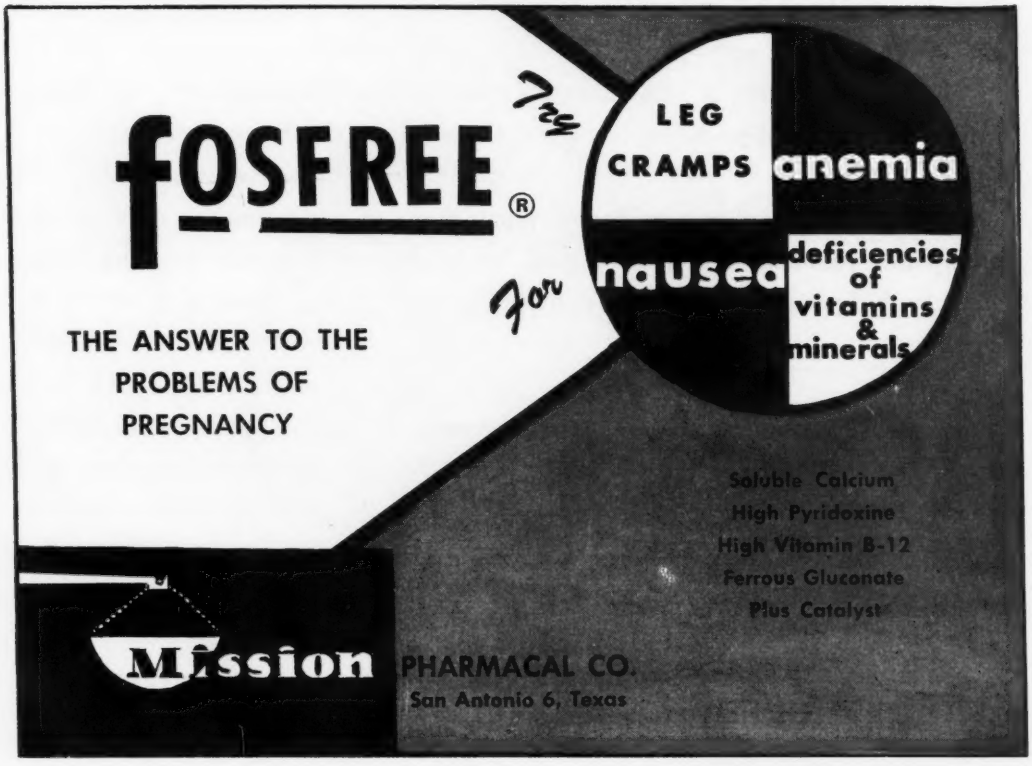

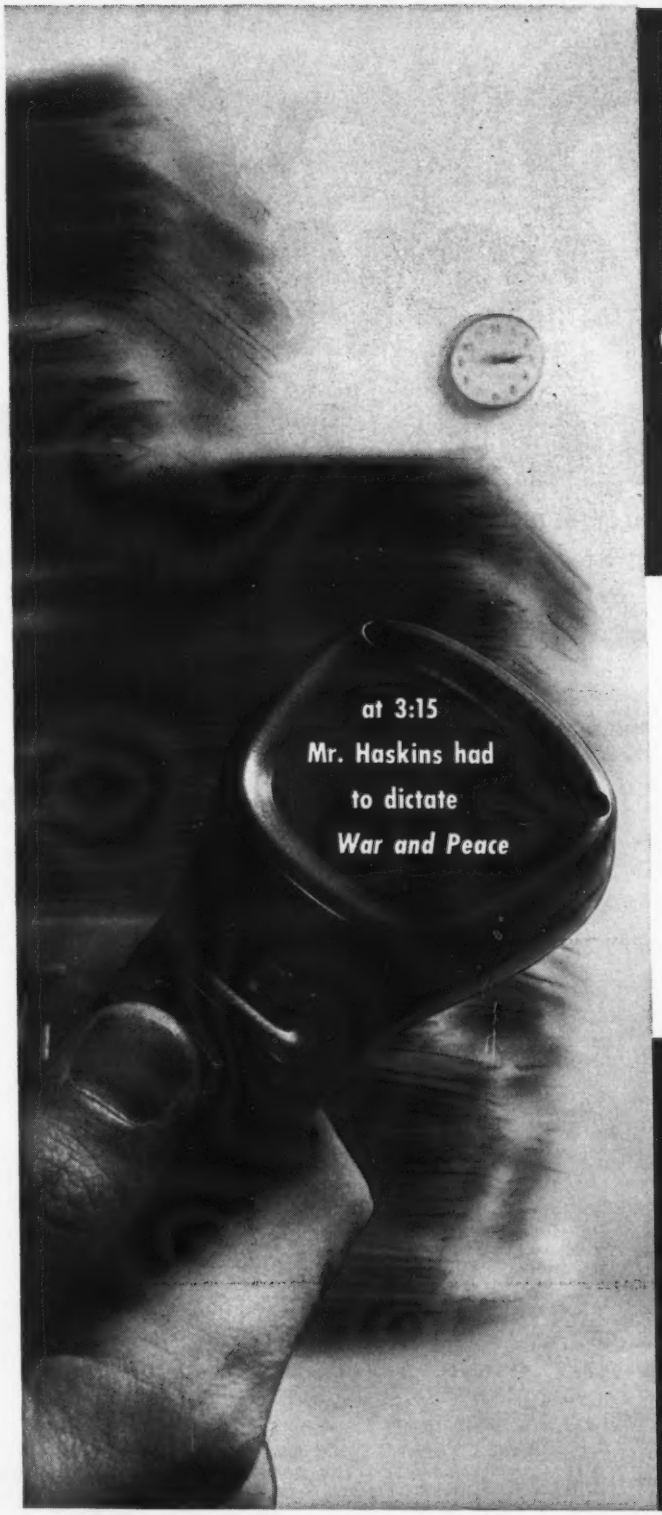

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Combines Meprobamate (*400 mg.*) **the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of gastric ulcer — without fear of barbiturate loginess, hangover or habituation . . .** *with* PATHILON (*25 mg.*) **the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.**

Dosage: **1 tablet t.i.d. at mealtime. 2 tablets at bedtime.** ***Supplied:*** **Bottles of 100, 1,000.**

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"the value of analgesic and tranquilizing agents should be clearly recognized in the management of [angina]..."[1]

new for angina

PETN + ATARAX*
PENTAERYTHRITOL TETRANITRATE — BRAND OF HYDROXYZINE

CARTRAX*

links freedom from anginal attacks with a shelter of tranquility

In pain. Anxious. Fearful. On the road to cardiac invalidism. These are the pathways of angina patients. For fear and pain are inextricably linked in the angina syndrome.

For angina patients—perhaps the next one who enters your office—won't you consider new CARTRAX? This doubly effective therapy combines PETN (pentaerythritol tetranitrate) for lasting vasodilation and ATARAX for peace of mind. Thus CARTRAX relieves not only the anginal pain but reduces the concomitant anxiety.

Dosage and supplied: begin with 1 to 2 yellow tablets (10 mg. PETN plus 10 mg. ATARAX) 3 to 4 times daily. This may be increased for maximal effect by switching to *pink* tablets (20 mg. PETN plus 10 mg. ATARAX). In bottles of 100.

CARTRAX should be taken *before* meals, on a *continuous* dosage schedule. Use with caution in glaucoma.

1. Russek, H. I.: J. Am. Geriat. Soc. *4*:877 (Sept.) 1956.

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disappointed with half measures in angina?

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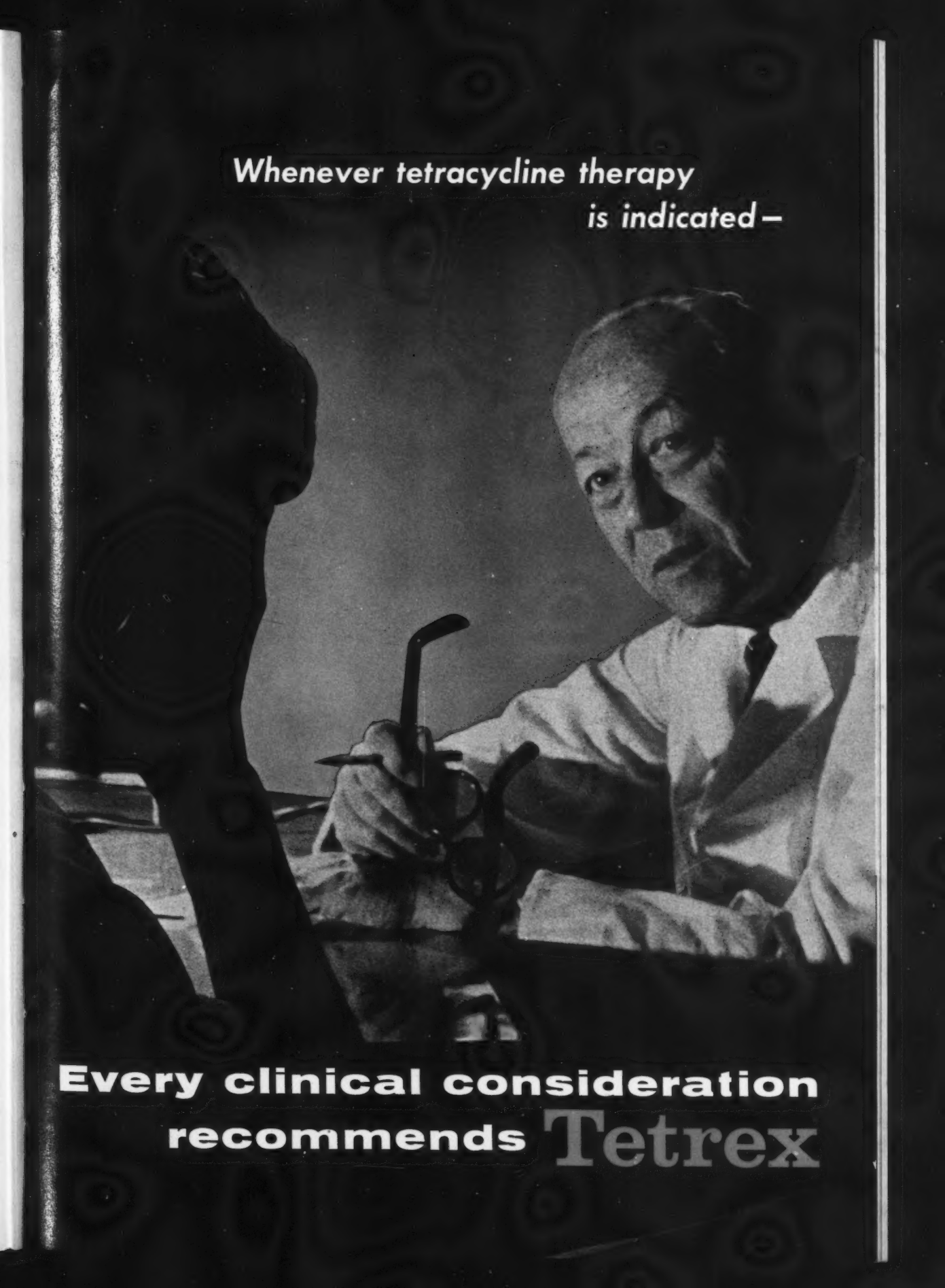
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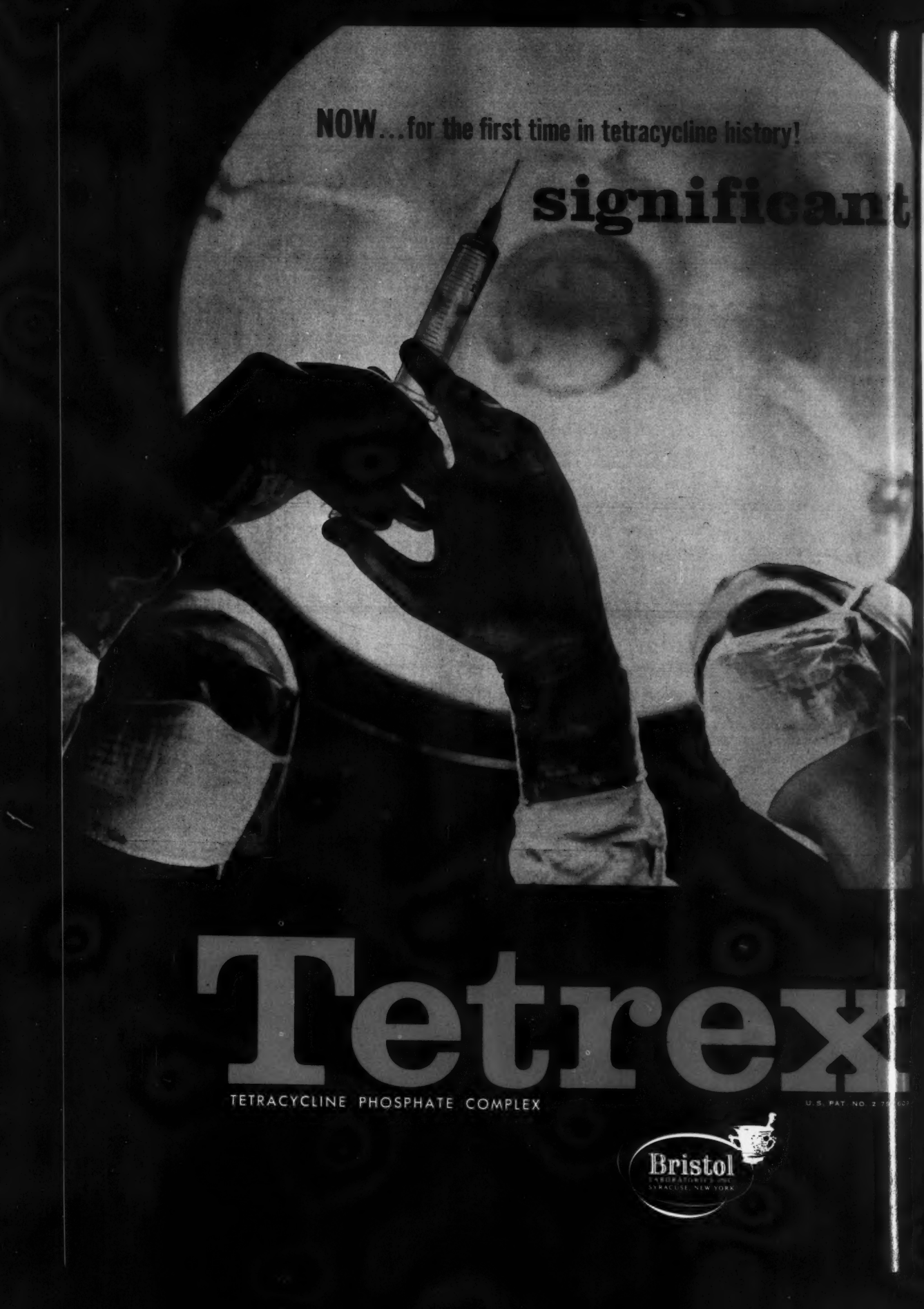
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TETREX Intramuscular '250' can be reconstituted for injection by adding 1.6 cc. of sterile distilled water or normal saline, to make a total injection volume of 2.0 cc. When the entire 250 mg. are to be injected, and minimal volume is desired, as little as 1.0 cc. of diluent need be used. (Full instructions for administration and dosage for adults and children, accompany packaged vial.)

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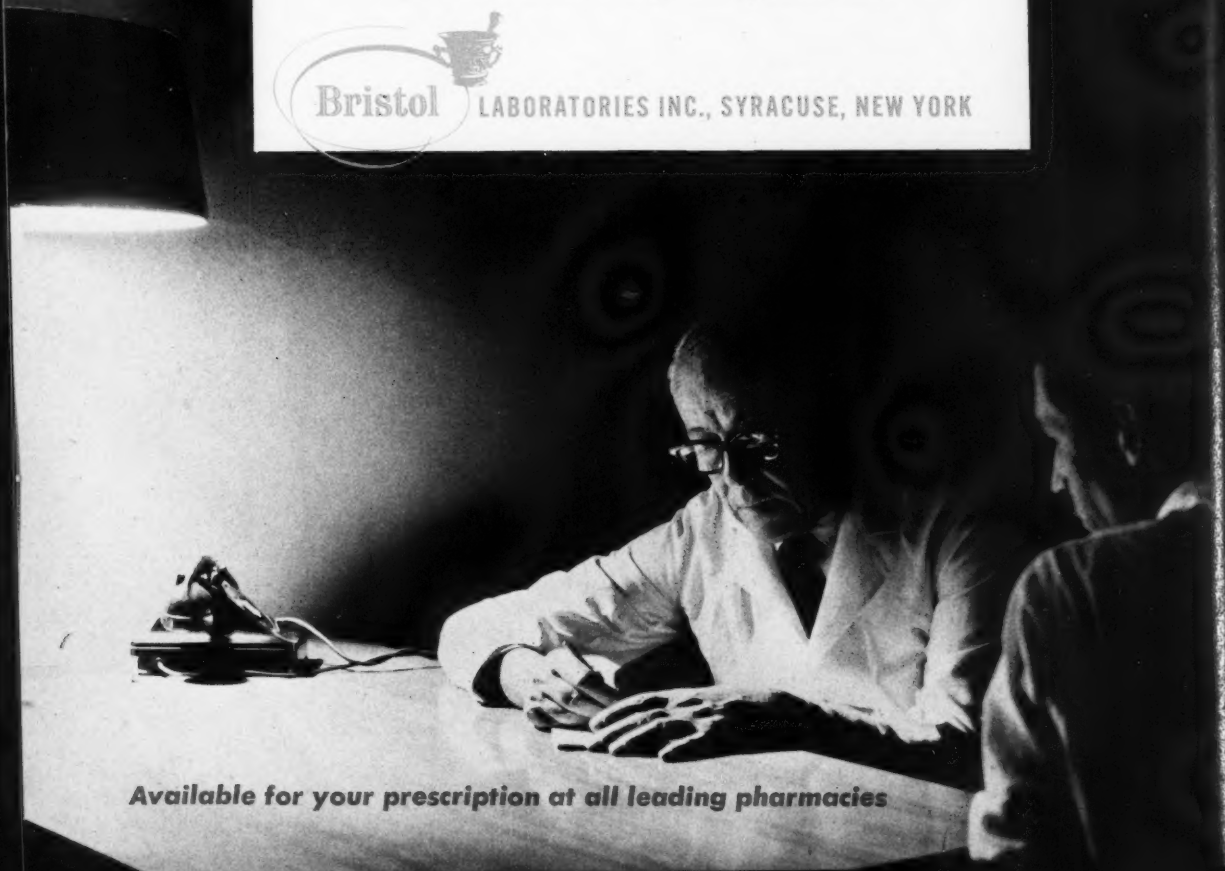

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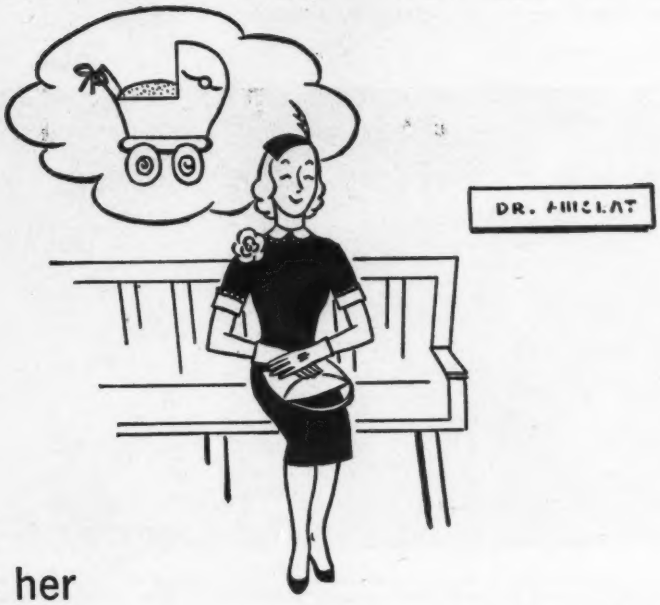

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. . . without nausea

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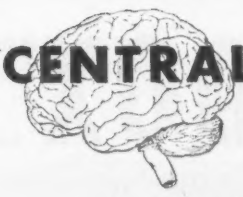

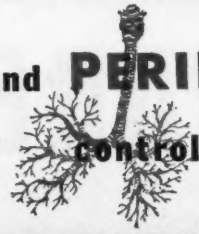

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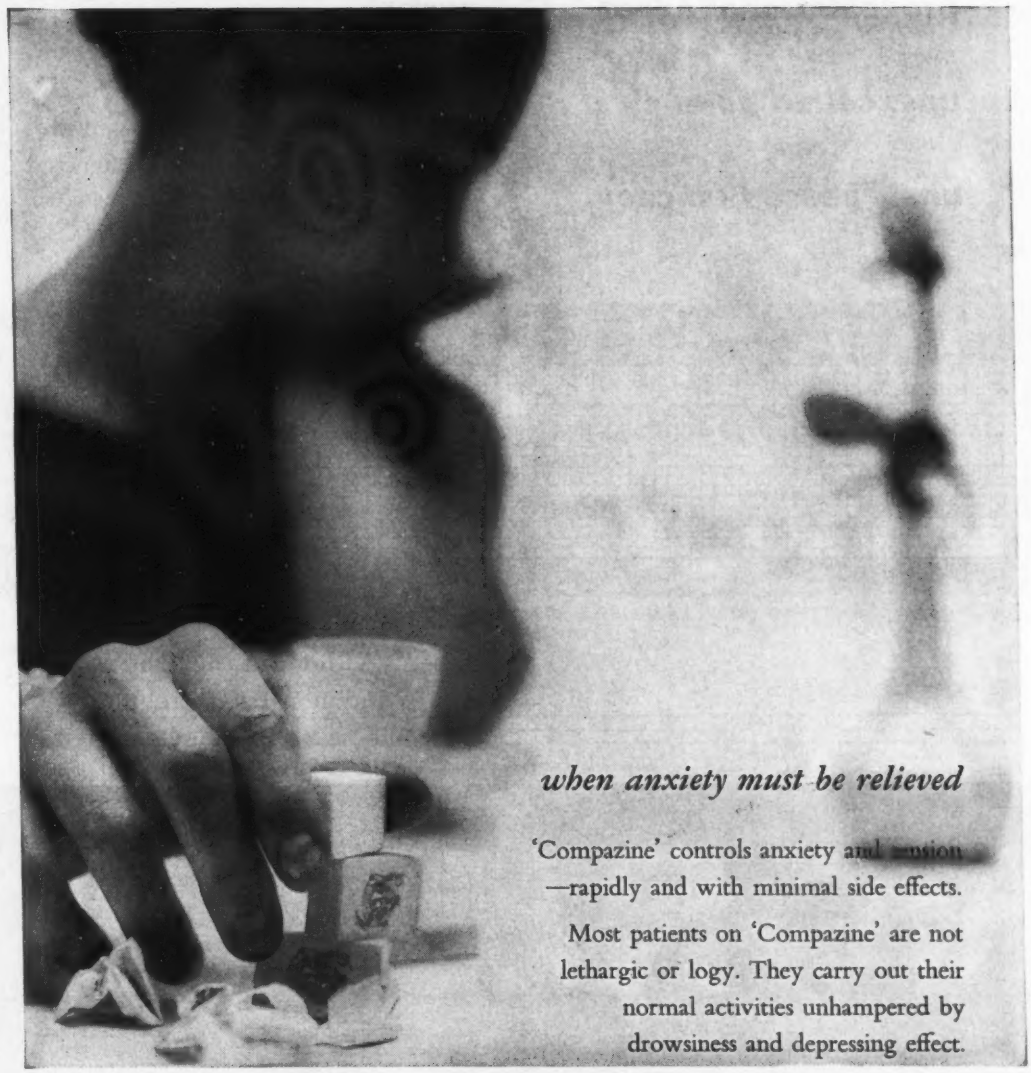
Neo-Synephrine® hydrochloride	5.0 mg.
Thenfadil® hydrochloride	4.0 mg.
Dihydrocodeinone bitartrate	1.33 mg.
Potassium guaiacol sulfonate	70.0 mg.
Ammonium chloride	70.0 mg.
Menthol	1.2 mg.
Chloroform	0.02 cc.
Alcohol	8%

Bottles of 16 fl. oz.

EXEMPT NARCOTIC



when anxiety must be relieved

'Compazine' controls anxiety and tension —rapidly and with minimal side effects.

Most patients on 'Compazine' are not lethargic or logy. They carry out their normal activities unhampered by drowsiness and depressing effect.

*Compazine**

the tranquilizer remarkable for its freedom from drowsiness and depressing effect

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with
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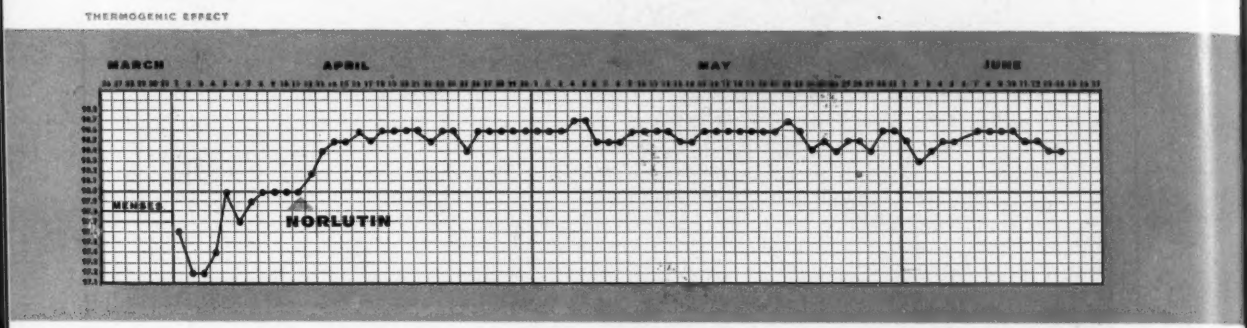
With NORLUTIN you can now prescribe truly effective *oral* progestational therapy. Small oral doses of this new and distinctive progestogen produce the biologic effects of injected progesterone.



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major advance in female hormone therapy for certain disorders of menstruation and pregnancy

INDICATIONS FOR NORLUTIN: conditions involving deficiency of progestogen, such as primary and secondary amenorrhea, menstrual irregularity, functional uterine bleeding, endocrine infertility, habitual abortion, threatened abortion, premenstrual tension, and dysmenorrhea.

PACKAGING: 5-mg. scored tablets (C. T. No. 882), bottles of 30.

*Greenblatt, R. B.: *J. Clin. Endocrinol.* 16:869, 1956.

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when anxiety and tension "erupts" in the G. I. tract...

IN DUODENAL ULCER

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Combines Meprobamate (*400 mg.*) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of duodenal ulcer — without fear of barbiturate loginess, hangover or habituation . . . *with* PATHILON (*25 mg.*) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

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and NOW for patients with SEVERE involvement

MULTIPLE-COMPRESSED TABLETS

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The first meprobamate-prednisolone therapy

the one antirheumatic, antiarthritic that simultaneously relieves: (1) muscle spasm (2) joint inflammation (3) anxiety and tension (4) discomfort and disability.

SUPPLIED: Multiple Compressed Tablets in three formulas: 'MEPROLONE'-5—5.0 mg. prednisolone, 400 mg. meprobamate and 200 mg. dried aluminum hydroxide gel. 'MEPROLONE'-2—2.0 mg. prednisolone, 200 mg. meprobamate and 200 mg. dried aluminum hydroxide gel. 'MEPROLONE'-1 supplies 1.0 mg. prednisolone in the same formula as 'MEPROLONE'-2.

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New Chemotherapy

ARALEN® *in* RHEUMATOID ARTHRITIS

Extensive studies of rheumatoid arthritis and related collagen diseases—in this country and abroad—have shown the antimalarial Aralen phosphate to be highly effective and well tolerated in a large percentage of patients.

Clinical Results with Aralen in Rheumatoid Arthritis

Author	No. of Cases	Major Improvement	Minor Improvement	No Effect
Heydu[1]	28	22	5	1
Rinehart[2]	25	12	4	9
Freedman[3]	50	43	3	4
Bagnall[4]	108	77	12	19
Bruckner[5]	36	32	0	4
Cohen and Calkins[6]	22	17	3	2
Scherbel et al.[7]	25	9	8	8
Total	294	212 (72%)	35 (12%)	47 (16%)

- Success dependent upon persistent treatment
- Often of benefit where other agents have failed
- Remissions on therapy well maintained
- Remission of 3 to 12 months possible even if treatment is interrupted
- Tachyphylaxis not evident

GENERAL EFFECTS:

- Patient feels better
- Patient looks better
- Exercise tolerance increases
- Walking speed and hand grip improves

LABORATORY EFFECTS:

- E. S. R. may fall slowly
- Hemoglobin level may gradually rise

ANALGESICS AND STEROIDS:

- Requirements usually reduced or eliminated

JOINT EFFECTS:

- Pain and tenderness relieved
- Mobility increases
- Swellings diminish or disappear
- Muscle strength improves
- Rheumatic nodules may disappear
- Even severe or advanced deformity may improve
- *Active* inflammatory process usually subsides
- Joint effusion may diminish

DOSAGE:

Aralen is cumulative in action and requires four to twelve weeks of administration before therapeutic effects become apparent.

Latest information indicates that an initial daily dose of 250 mg. of Aralen phosphate is preferable to the higher doses sometimes recommended. However, if side effects appear, withdraw Aralen for several days until they subside. Reinstate treatment with 125 mg. daily and, if well tolerated, increase to 250 mg. The usual maintenance dose is 250 mg. daily.

New Chemotherapy

INDICATIONS:

- Rheumatoid arthritis, acute or chronic —with or without adjunctive therapy.
- Spondylitis
- Arthritis associated with lupus erythematosus or psoriasis

THEORY OF ACTION:

Aralen appears to suppress or induce remission of rheumatoid inflammatory processes by inhibiting adenosinetriphosphatase.

HOW SUPPLIED:

Aralen phosphate: 250 mg. tablets in bottles of 100 and 1000.
125 mg. tablets in bottles of 100.

Tolerance:

Aralen is usually well tolerated. Toxic effects are usually mild and to date have been transitory in nature, disappearing completely either on continuance or cessation of therapy or on reduction in dosage.

Gastrointestinal disturbances (e.g. nausea, rarely vomiting, diarrhea, abdominal cramps, anorexia) are frequent manifestations of intolerance. Temporary blurring of vision (due to interference with accommodation) is also relatively frequent.

Pleomorphic skin eruptions (e.g. lichenoid, maculopapular, purpuric), although generally mild, may preclude the use of an optimum dosage schedule. If a skin reaction persists on a reduced dosage schedule, or recurs after reinstitution of treatment with gradually increasing doses, discontinue Aralen till the lesion again disappears and consider resuming treatment with Plaquenil® (brand of hydroxychloroquine).

Less frequently transitory vertigo, headache, lassitude, or neurological disturbances, such as nervousness, irritability, emotional change, and nightmares have been reported. Instances of unexplained slight gradual weight loss as the patient's general health and arthritic condition improved have been mentioned. Occasional instances of bleaching (depigmentation) of the hair have been described.

Although an occasional instance of leukopenia, with normal differential count, has been reported (WBC about 3000), it has not proved troublesome because it has always been reversible on discontinuance, or diminution of the dose. Even spontaneous reversal may occur while full dosage is maintained.

Caution:

Aralen is known to concentrate in the liver and, although hepatic damage has never been reported, the drug should be used with caution in the presence of liver disease. In the presence of severe gastrointestinal, neurological, or blood disorders, the drug should be used with caution or not at all. If such disorders occur during the course of therapy, the drug should be discontinued. Concomitant use of gold or phenylbutazone with Aralen should be avoided because of the tendency of these agents to produce drug dermatitis.

Clinical Comments:

Of fifty patients receiving Aralen therapy, "43 have become really well; that is, they have no stiffness, and any pain that occurs can reasonably be attributed to use of joints affected by secondary degenerative changes. They have no evidence of joint inflammation, but may have a raised erythrocyte sedimentation rate. They have little or no need for analgesics." *Freedman*[3]

"One hundred and twenty-five private patients have been carefully followed clinically and haematologically while receiving well over 200 patient-years of chloroquine [Aralen] therapy. The results are considered good in 70%, one-half of these cases being in remission. Improved work performance, sedimentation rate, and hemoglobin levels paralleled the major objective gain in this 70%. 90% of them remained on chloroquine [Aralen] therapy, half for more than two years. Classical peripheral rheumatoid arthritis, spondylitis, arthritis of juvenile onset, and rheumatoid disease with psoriasis, all appeared to respond about equally well.

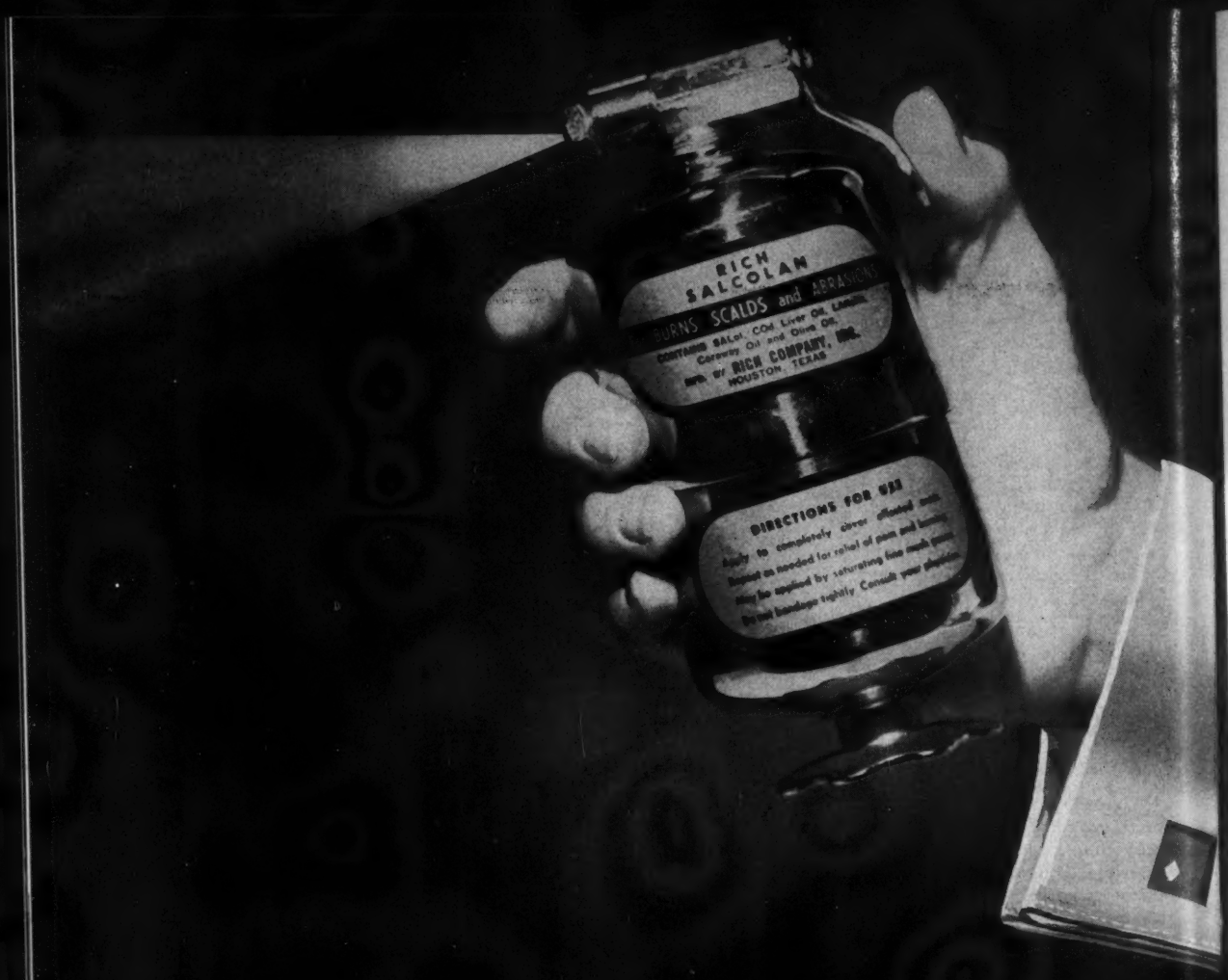
"It is suggested that chloroquine comes closer to the ideal for long-term, safe, control of rheumatoid disease than any other agent now available." *Bagnall*[4]

"Out of the 36 rheumatoid arthritis cases we treated . . . favorable results were obtained in 32 cases. *Bruckner et al.*[5]

References

1. Haydu, G.G.: Rheumatoid arthritis therapy; a rationale and the use of chloroquine diphosphate, *Am. J. M. Sc.* 225:71, Jan., 1953.
2. Rinehart, R.E.: Chloroquine therapy in rheumatoid arthritis, *Northwest Med.* 54:718, July, 1955.
3. Freedman, A.: Chloroquine and rheumatoid arthritis, a short-term controlled trial, *Ann. Rheum. Dis.* 15:251, Sept., 1956.
4. Bagnall, A.W.: The value of chloroquine in rheumatoid disease, a four year study of continuous therapy, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
5. Bruckner I., and Rosenzweig, S.: Treatment of chronic rheumatoid arthritis with synthetic antimalarials, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
6. Cohen, A.S., and Calkins, Evan: A controlled study of chloroquine as an antirheumatic agent, read at the Ninth International Congress on Rheumatic Diseases in Toronto, Canada, June 23-28, 1957.
7. Scherbel, A. L., Schuchter, S.L., and Harrison, J.W.: Comparison of effects of two antimalarial agents, hydroxychloroquine sulfate and chloroquine phosphate, in patients with rheumatoid arthritis, *Cleveland Clin. Quart.* 24:38, April, 1957.

Winthrop LABORATORIES NEW YORK, N.Y.



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GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, February 10. Vaginal Approach to Pelvic Surgery, One Week, February 3. General & Surgical Obstetrics, Two Weeks, February 24.

MEDICINE—General Review Courses, Two Weeks, April 28. Electrocardiography & Heart Disease, Two Weeks, March 10. Gastroscopy & Gastroenterology, Two Weeks, March 17. Hematology, One Week, to be announced.

PEDIATRICS—Two Week Intensive Course, May 12. Neuromuscular Diseases of Children-Cerebral Palsy, Two Weeks, June 9.

RADIOLOGY—Diagnostic X-Ray, Two Weeks, February 3. Clinical Uses of Radioisotopes, Two Weeks, May 5.

UROLOGY—Two-Week Intensive Course, March 31.

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appetite curbed . . .
sleep undisturbed
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Chemically different from the amphetamines, PRELUDIN provides potent appetite suppression with little or no central stimulation.
• rarely causes loss of sleep — may be given late enough in the day to curtail after-dinner "nibbling," yet not hinder sleep.
• avoids nervous tension and "jitters"[2] — simultaneous sedation is not required.[3]
". . . in clinical use the side-effects of nervousness, hyperexcitability, euphoria, and insomnia are much less than with the amphetamine compounds and rarely cause difficulty."[4]
References: (1) Gelvin, E. P.; McGavack, T. H., and Kenigsberg, S.: Am. J. Digest. Dis. 1:155, 1956. (2) Holt, J. O. S., Jr.: Dallas M. J. 42:497, 1956. (3) Natenshon, A. L.: Am. Pract. & Digest Treat. 7:1456, 1956. (4) Council on Pharmacy and Chemistry, New and Nonofficial Remedies: J.A.M.A. 163:356 (Feb. 2) 1957.
PRELUDIN® (brand of phenmetrazine hydrochloride). Scored, square, pink tablets of 25 mg. Under license from C. H. Boehringer Sohn, Ingelheim.
GEIGY Ardsley, New York

CHEMOTHERAPY PLUS FLORA CONTROL

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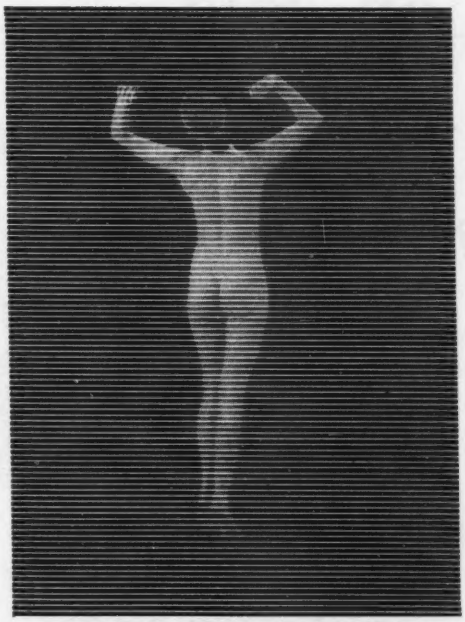
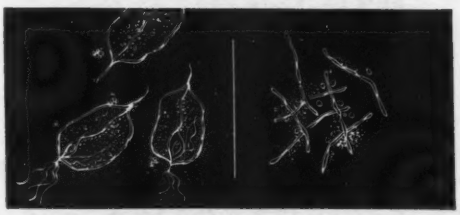
Destroys Vaginal Parasites
Protects Vaginal Mucosa





Vaginal discharge is one of the most common and most troublesome complaints met in practice. Trichomoniasis and monilial vaginitis, by far the most common causes of leukorrhea, are often the most difficult to control. Unless the normal acid secretions are restored and the protective Döderlein bacilli return, the infection usually persists.

Through the direct chemotherapeutic action of its Diodoquin® (diiodohydroxyquin, U.S.P.) content, Floraquin effectively eliminates both trichomonal and monilial infections. Floraquin also contains boric acid and dextrose to restore the physiologic acid pH and provide nutriment which favors regrowth of the normal flora.

Method of Use

The following therapeutic procedure is suggested: One or two tablets are inserted by the patient each night and each morning; treatment is continued for four to eight weeks.

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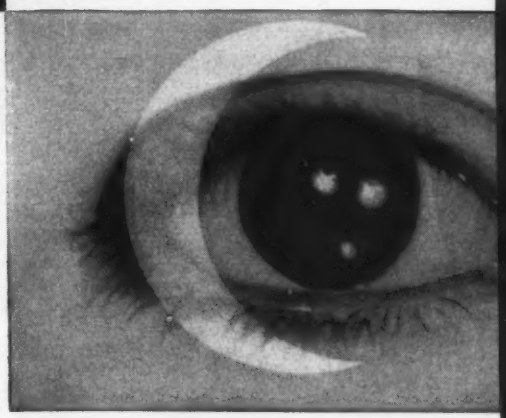

References

1. King, J. H., Jr.; Passmore, J. W.; Skeehan, R. A., Jr., and Weimer, J. R.: Tr. Am. Acad. Ophth. *59*:759, 1955.
2. Kuhn, H. S.: Tr. Am. Acad. Ophth. *55*:431, 1951.

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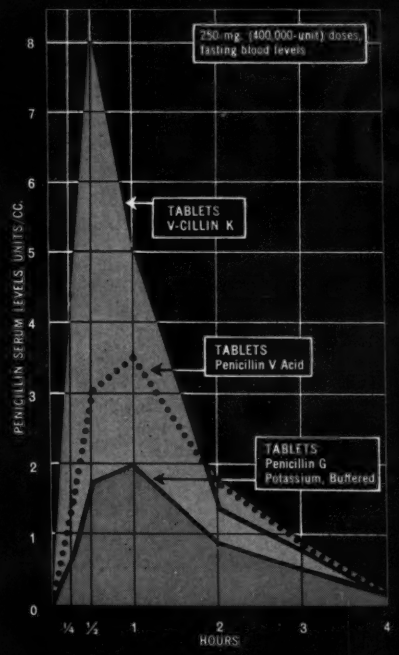

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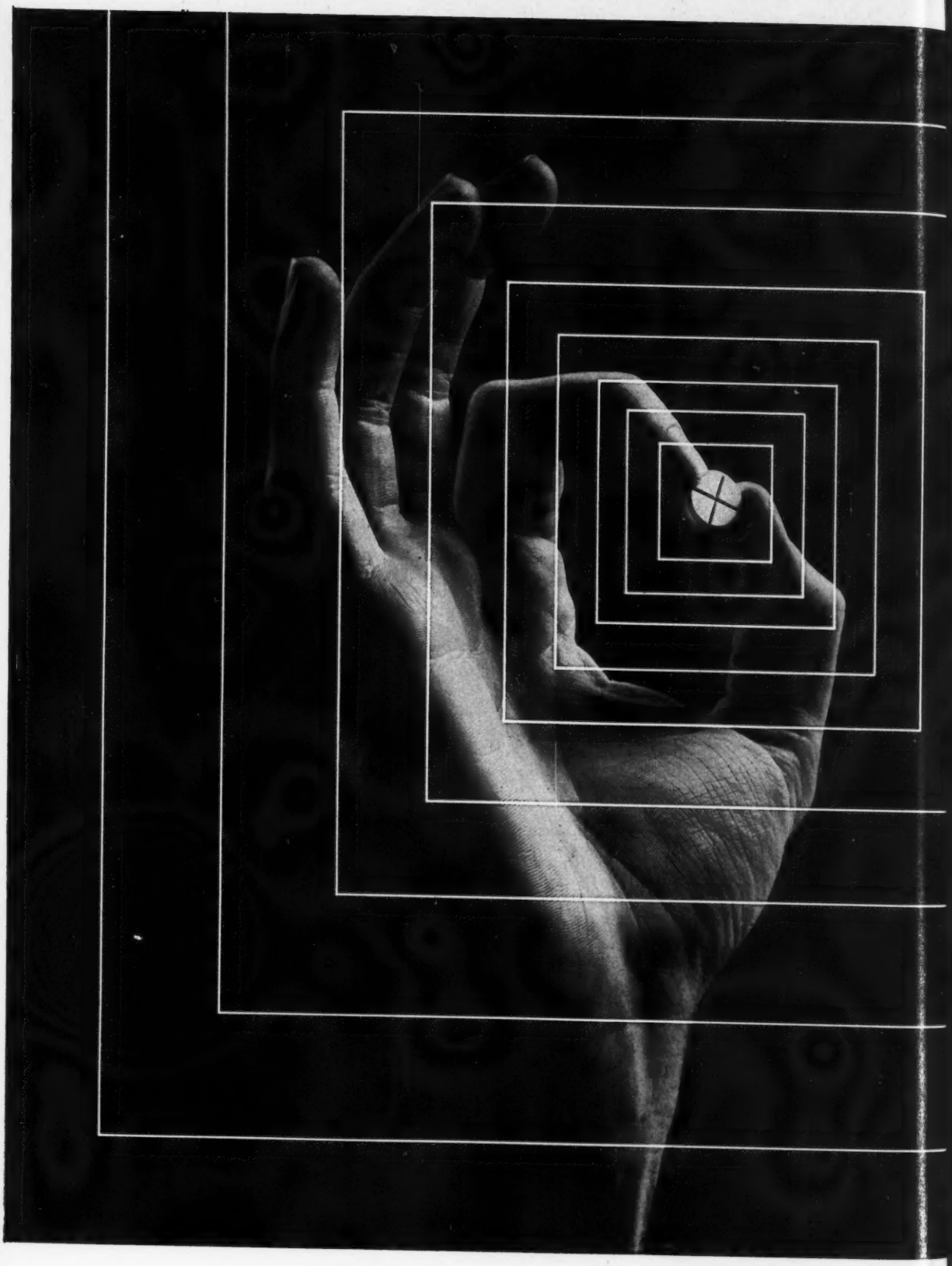

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1. Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.

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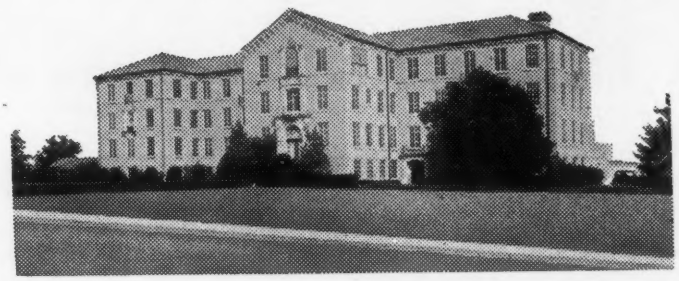

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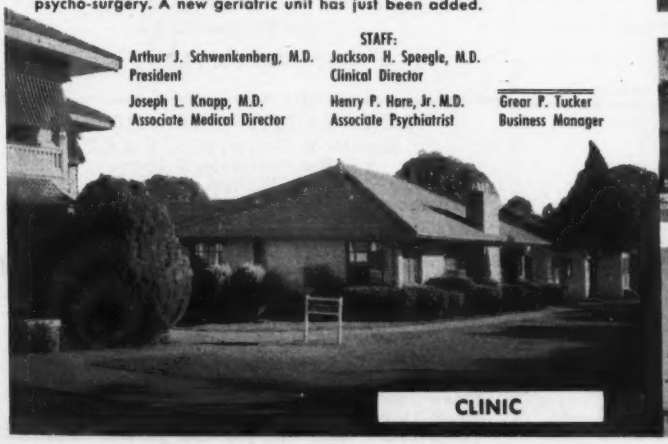

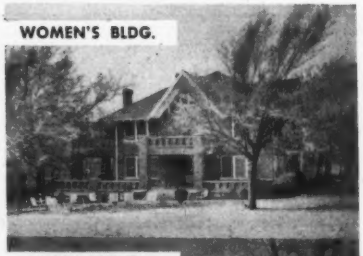

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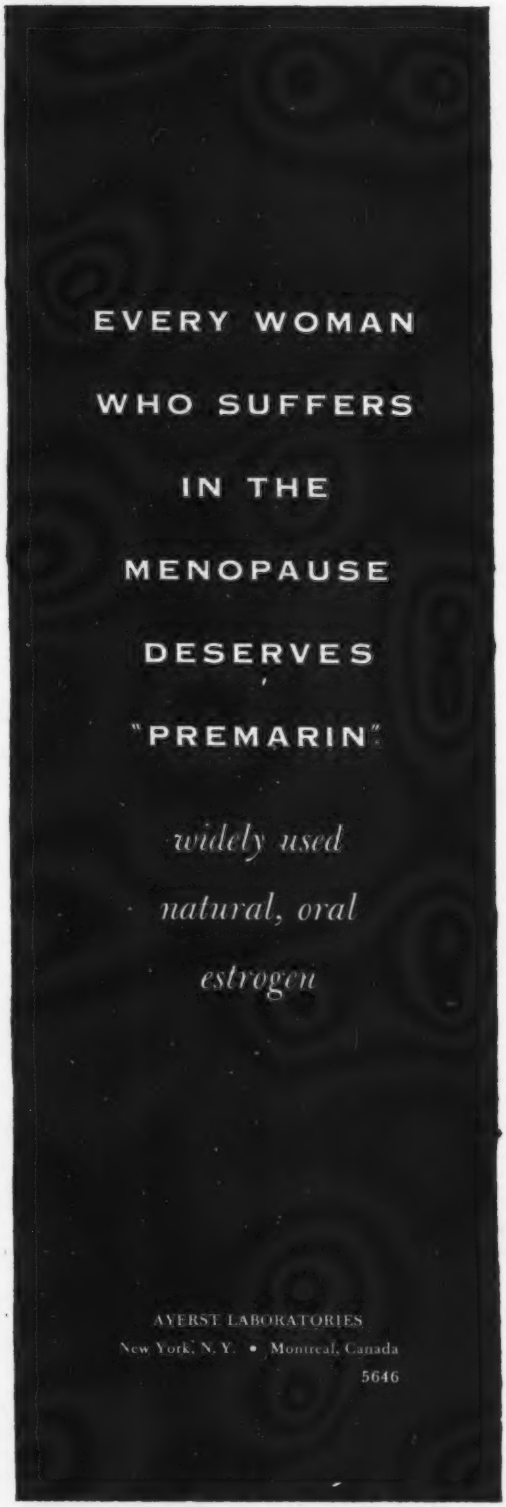

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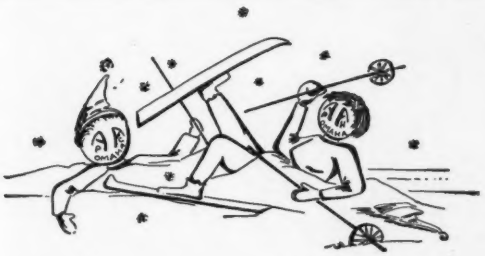

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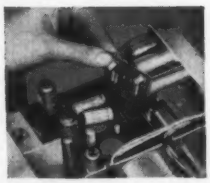

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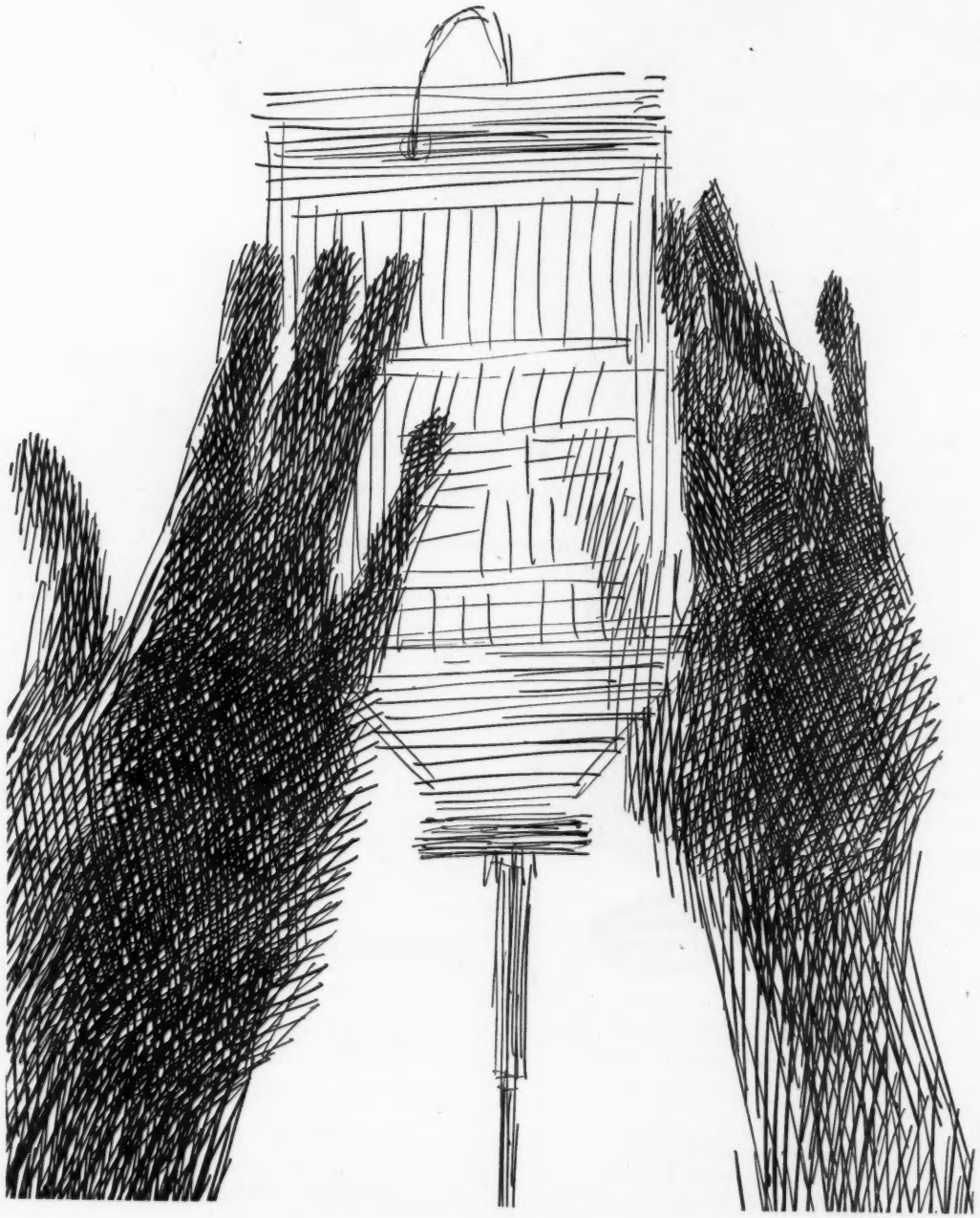

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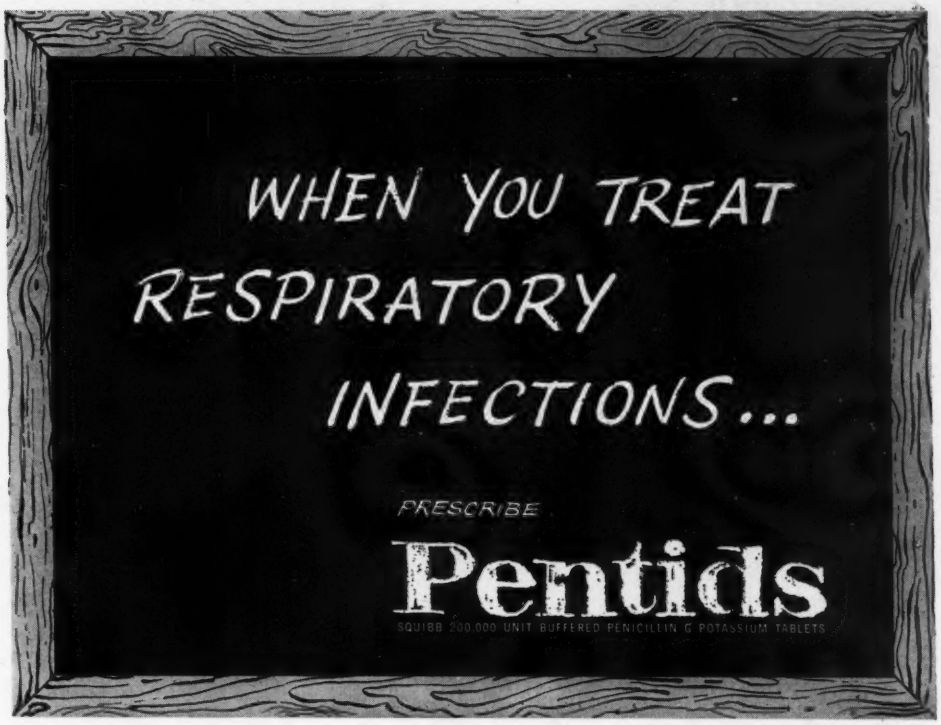

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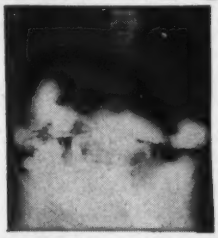

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Gastroenterology
Robert A. Davison, M. D., Memphis, Tenn.
General Practice
Lawrence M. Randall, M. D., Rochester, Minn.
Gynecology
Bayard T. Horton, M. D., Rochester, Minn.
Internal Medicine
Perrin H. Long, M. D., Brooklyn, N. Y.
Internal Medicine
George N. Raines, Capt., MC, USN, Washington, D. C.
Neuropsychiatry
Robert H. Barter, M. D., Washington, D. C.
Obstetrics
Ralph O. Rychener, M. D., Memphis, Tenn.
Ophthalmology
C. Leslie Mitchell, M. D., Detroit, Mich.
Orthopedic Surgery
Frank D. Lathrop, M. D., Boston, Mass.
Otolaryngology
Arthur H. Wells, M. D., Duluth, Minn.
Pathology
James Marvin Baty, M. D., Boston, Mass.
Pediatrics
Harold O. Peterson, M. D., Minneapolis, Minn.
Radiology
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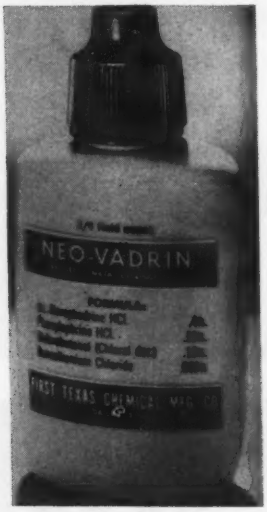

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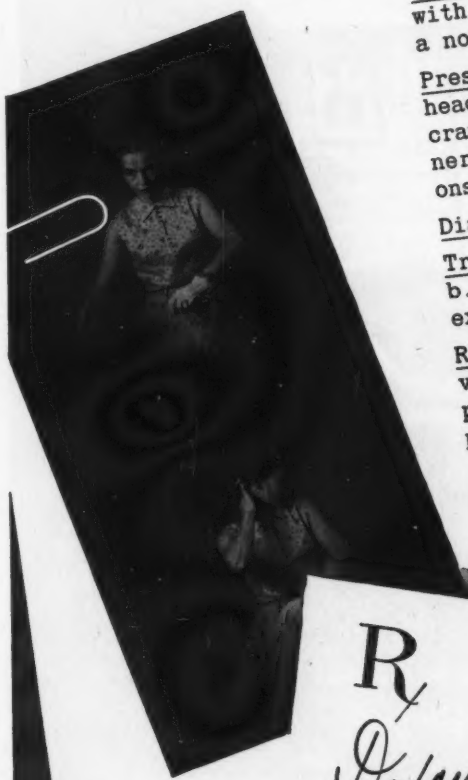

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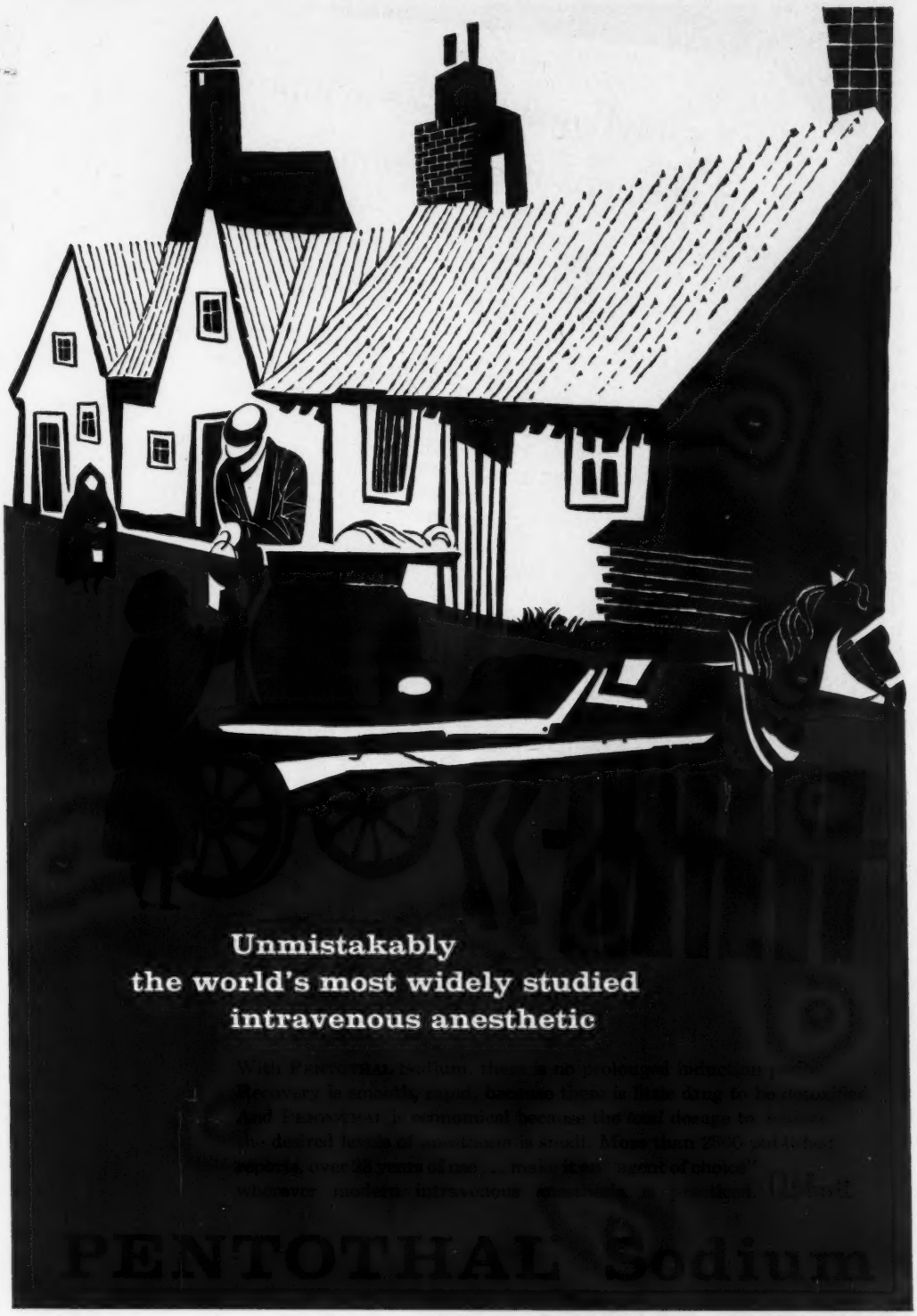

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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2)

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Lewis, H. H.; Frumess, G. M., and Henschel, E. J.: Rocky Mountain M. J. *54*:806 (Aug.) 1957.

"Results of treatment with oleandomycin-tetracycline of 50 infections [mostly respiratory] due to resistant organisms and 40 infections [respiratory, skin, urinary infections] due to sensitive organisms are very encouraging. In some of these patients, [Signemycin] was lifesaving, and in others surgery was made unnecessary. This confirms other reports."

Shubin, H.: Antibiotic Med. & Clin. Therapy *4*:174 (March) 1957.

Based on case reports documented by independent investigators in 26 countries abroad, the clinical response obtained with Signemycin in 1404 patients with a wide variety of infections was successful in 1329 patients; in 13 cases only was it necessary to discontinue therapy because of side effects.

Report on 1404 Cases Treated with Signemycin: Medical Department, Pfizer International. Available on request.

In 50 nonselected patients, Signemycin "...appears to be effective in the treatment of most general surgical infections, including virulent staphylococcus aureus infections. In some cases these infections had been clinically resistant to other antibiotics. The drug is apparently well tolerated."

Levi, W. M., and Kredel, F. E.: J. South Carolina M. A. *53*:178 (May) 1957.

Of 50 patients with various infectious processes, 26 had not responded to previous antibiotic therapy. With Signemycin "Ninety-six per cent of the mixed infections were clinically controlled. . . . and in none of the cases was there any reason to discontinue the drug."

Winton, S. S., and Chesrow, E.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 55.

Signemycin in 79 patients with severe soft tissue infections: "The average response of these cases was excellent and inflammatory symptoms subsided with almost uniform rapidity....The magnitude and incidence of surgical intervention was reduced....Side reactions were minimal. . . ."

LaCaille, R. A., and Prigot, A.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 67.

Five groups of patients (total 211) with acne were treated with one of five antibiotic agents, including Signemycin (55 cases). "The results were evaluated taking into consideration the usual response to such conservative conventional therapy and the rapidity of response." In 8 weeks, Signemycin rapidly attained and maintained the highest percentage of efficacy of antibiotic agents tried.

Frank, L., and Stritzler, C.: Antibiotic Med. & Clin. Therapy *4*:419 (July) 1957.

In the treatment of 78 patients with tropical infections, some complicated by multiple bacterial contamination or present for years, Signemycin was found to be "...an exceptionally effective agent," requiring smaller doses and less extended periods of therapy than with the tetracyclines alone, and "caused no notable toxic reactions."

Loughlin, E. H., and Mullin, W. G.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 63.

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FOR CHEERFUL INSTEAD OF FEARFUL PATIENTS

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ASTHMATIC—
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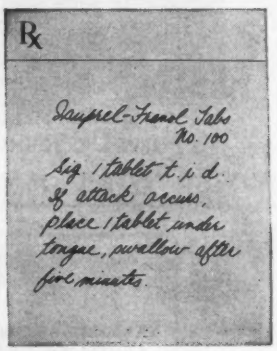
New Isuprel-Franol tablets bring round-the-clock relief *plus* emergency help against sudden attack. Anxiety stops when patients know they'll get relief in 60 seconds — relief that continues for four hours or more.

Isuprel HCl (10 mg. for adults, 5 mg. for children), the most potent bronchodilator known, makes up the outer coating. In a sudden attack, the patient puts the tablet under his tongue. Relief starts in 60 seconds. A unique feature is the "flavor-timer." As the Isuprel is absorbed a lemon flavor appears. When it disappears—about five minutes later — the patient swallows the tablet.

An unexcelled combination for prolonged bronchodilatation makes up the Isuprel-Franol core: benzylephedrine HCl (32 mg.), Luminal® (8 mg.) and theophylline (130 mg.). Swallowed, the tablet works for four hours or more.

Isuprel-Franol tablets are "... effective in controlling over 80% of patients with mild to moderate attacks of asthma."[1]

1. Fromer, J. L., and DeRisio, V. J.: *Lahey Clin. Bull.* 10:45, Oct.-Dec., 1956.



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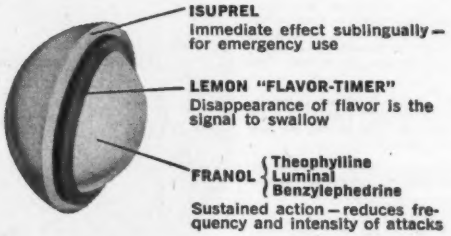
One tablet every three or four hours taken *orally* for continuous control of bronchospasm in chronic asthma. One tablet taken *sublingually* for sudden attack. "Flavor-timer" signals when patient should swallow.

Bottles of 100 tablets.

"Flavor-timer" signals patients when to swallow tablets



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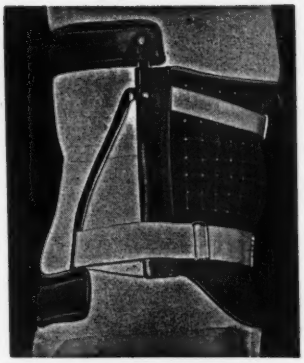

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200 mg. sugar-coated tablets

Usual dosage: One or two 400 mg. tablets t.i.d.

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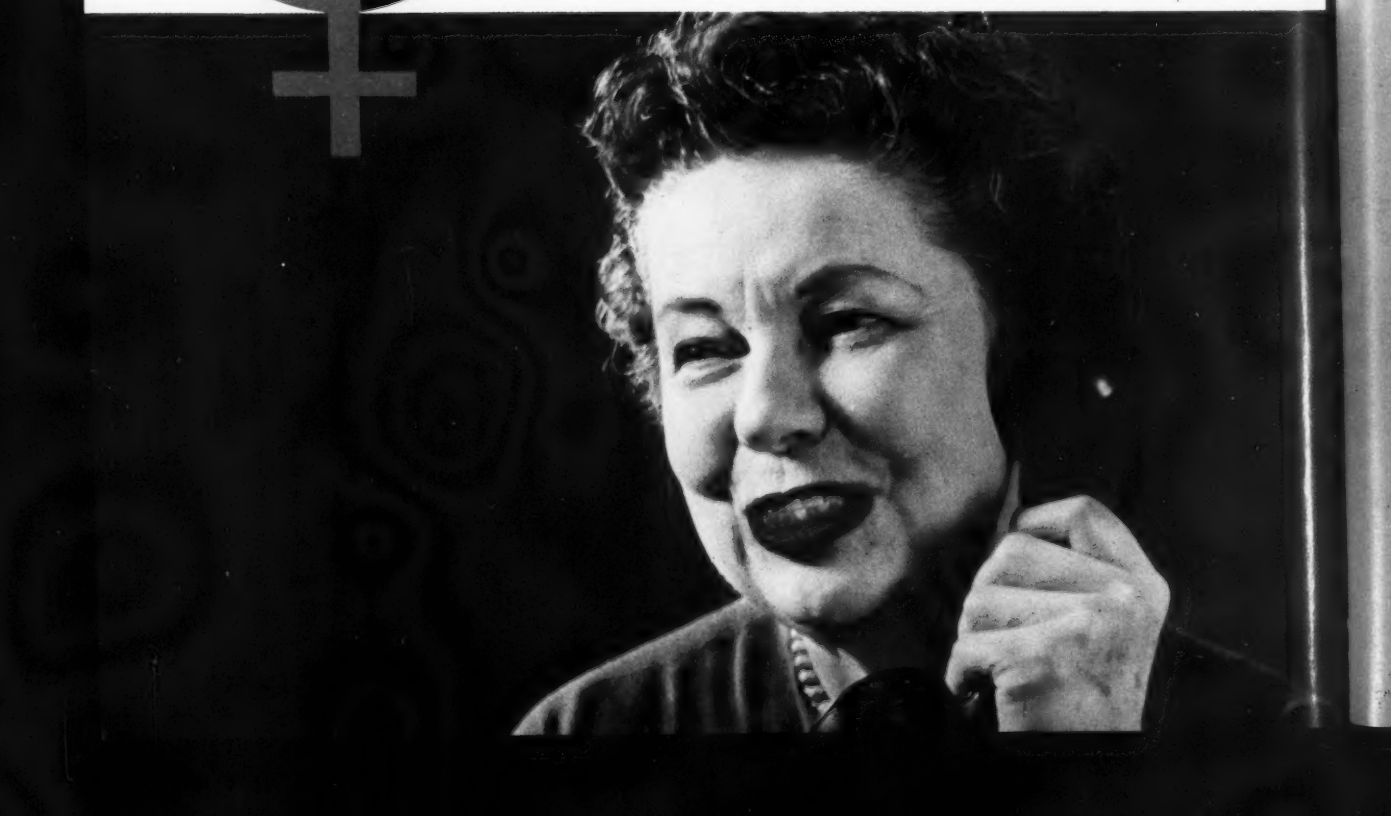

"care of the man rather than merely his stomach"[8]

"Milpath"

two-level control of gastrointestinal dysfunction

Miltown® + *anticholinergic*

at the central level The tranquilizer Miltown® reduces anxiety and tension.[1, 3, 6, 7] Unlike the barbiturates, it does not impair mental or physical efficiency.[5, 7]

at the peripheral level The anticholinergic tridihexethyl iodide reduces hypermotility and hypersecretion.

Unlike the belladonna alkaloids, it rarely produces dry mouth or blurred vision.[2, 4]

indications: peptic ulcer, spastic and irritable colon, esophageal spasm, G. I. symptoms of anxiety states.

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Tridihexethyl iodide ..... 25 mg.
(3-diethylamino-1-cyclohexyl-1-phenyl-1-propanol-ethiodide)

dosage: 1 tablet t.i.d. at mealtime and 2 tablets at bedtime.

available: bottles of 50 scored tablets.

references: 1. Altschul, A. and Billow, B.: The clinical use of meprobamate. (Miltown®). New York J. Med. *57*: 2361, July 15, 1957. 2. Atwater, J. S.: The use of anticholinergic agents in peptic ulcer therapy. J. M. A. Georgia *45*:421, Oct. 1956. 3. Borrus, J. C.: Study of effect of Miltown (2-methyl-2-*n*-propyl-1,3-propanediol dicarbamate) on psychiatric states. J. A. M. A. *157*:1596, April 30, 1955. 4. Cayer, D.: Prolonged anticholinergic therapy of duodenal ulcer. Am. J. Digest. Dis. *1*:301, July 1956. 5. Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: Experimental studies of behavioral effects of meprobamate on normal subjects. Ann. New York Acad. Sc. *67*:701, May 9, 1957. 6. Phillips, R. E.: Use of meprobamate (Miltown®) for the treatment of emotional disorders. Am. Pract. & Digest Treat. *7*:1573, Oct. 1956. 7. Selling, L. S.: A clinical study of Miltown®, a new tranquilizing agent. J. Clin. & Exper. Psychopath. *17*:7, March 1956. 8. Wolf, S. and Wolff, H. G.: Human Gastric Function, Oxford University Press, New York, 1947.

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Thiamine Mononitrate (B_1)	3 mg.
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Pyridoxine HCl (B_6)	3 mg.
Vitamin B_{12} (cobalamin concentrate)	3 mcg.
Niacinamide	25 mg.
d, Calcium Pantothenate	5 mg.
Folic Acid	0.5 mg.
Menadione (K)	1 mg.
Vitamin E (dl, alpha tocopheryl acetate)	1 Int. Unit
Magnesium	3 mg.
Manganese	1 mg.
Copper	1 mg.
Zinc	1 mg.
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The acne skin that is "surgically clean" is the one most likely to clear completely. Hodges[1] found that standard acne treatment usually results in "mediocre success" for most patients. *The addition of pHisoHex® washings to standard treatment produced results that far excel any obtained previously.*

pHisoHex, a powerful antibacterial skin cleanser containing hexachlorophene, removes oil and virtually all the bacteria from the skin surface.

For best results prescribe from four to six pHisoHex washings of the acne area daily.

1. Hodges, F. T.: GP, *14*:86, Nov., 1956.

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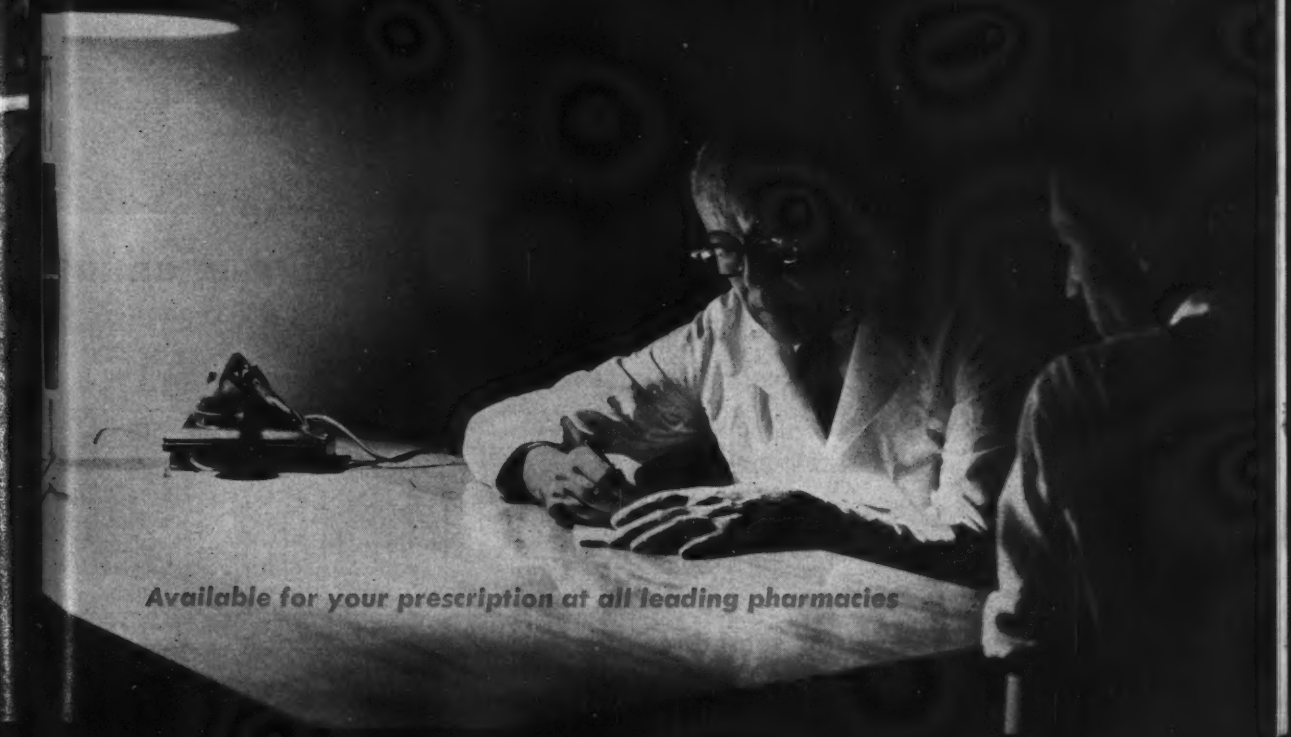

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» unexcelled antihistaminic action

Diagnosis	No. of Patients	Response				Side Effects
		Excellent	Good	Fair	Negative	
Allergic rhinitis and vasomotor rhinitis	30	14	9	5	2	Slight Drowsiness (1)
Urticaria and angioneurotic edema	3	1	1	1		Dizzy (1)
Allergic dermatitis	2		1	1		Slight Drowsiness (2)
Bronchial asthma	1		1			
Pruritus	1		1			
Total	37	15	13	7	2	Drowsiness (5) Dizzy (1) 16.2%

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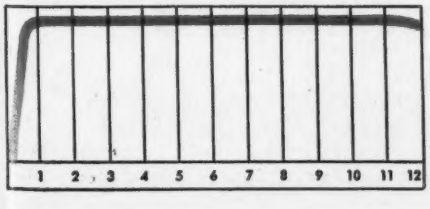

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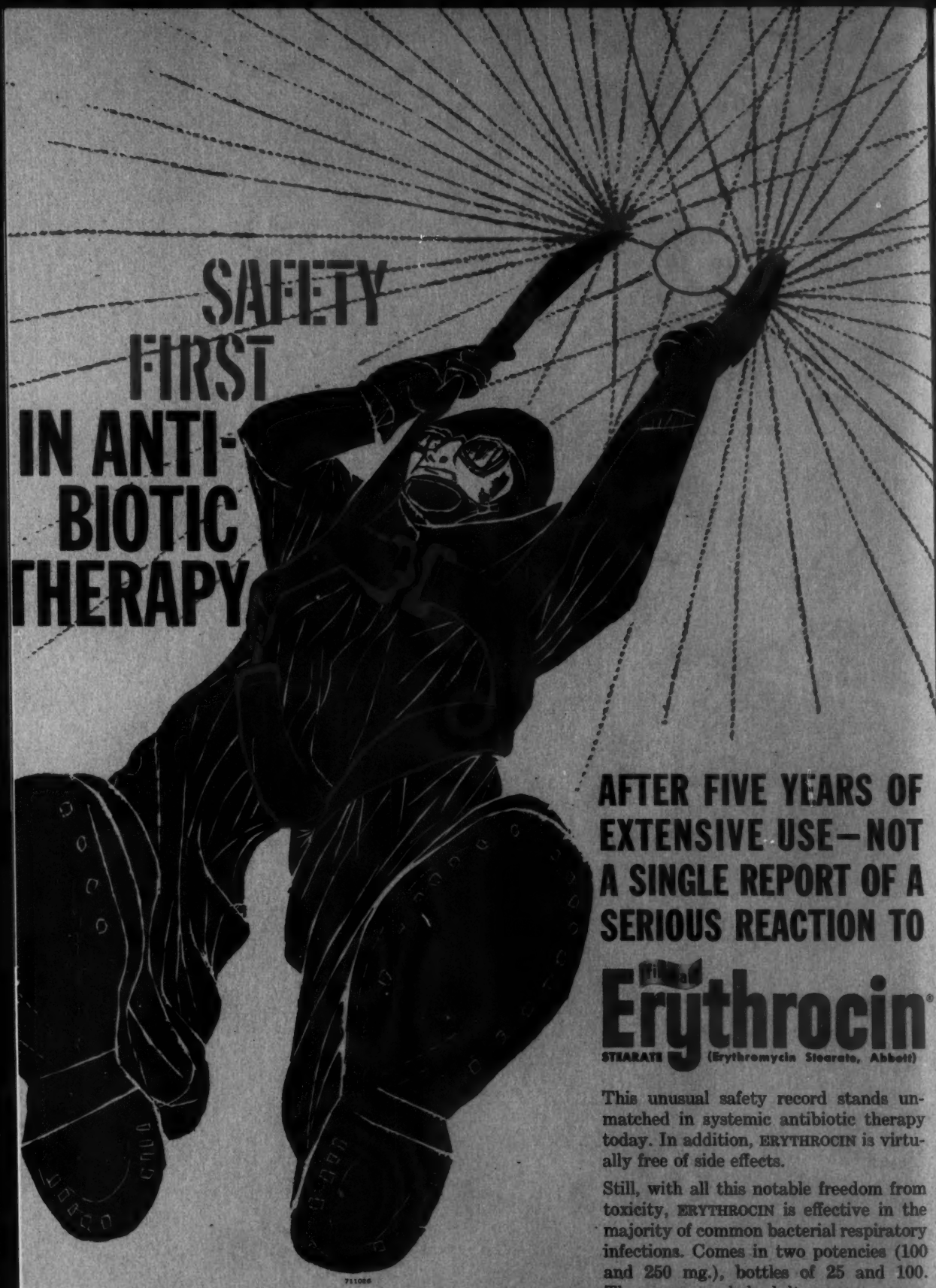

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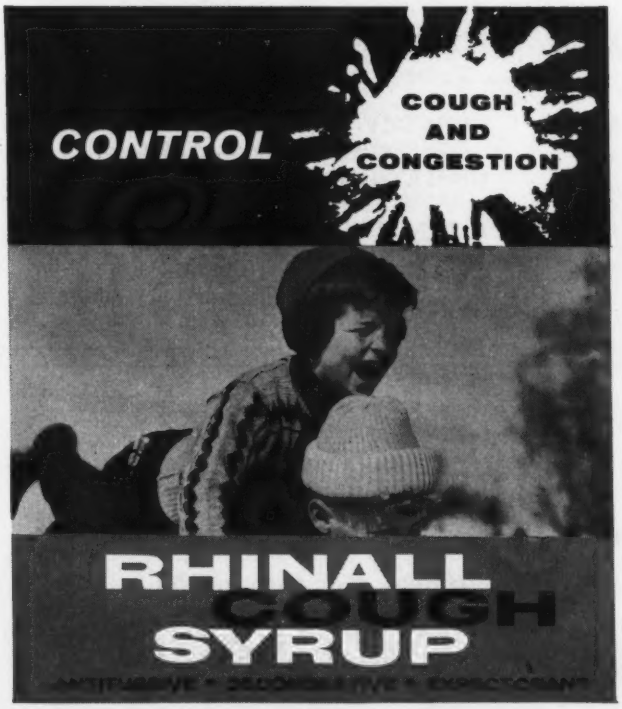

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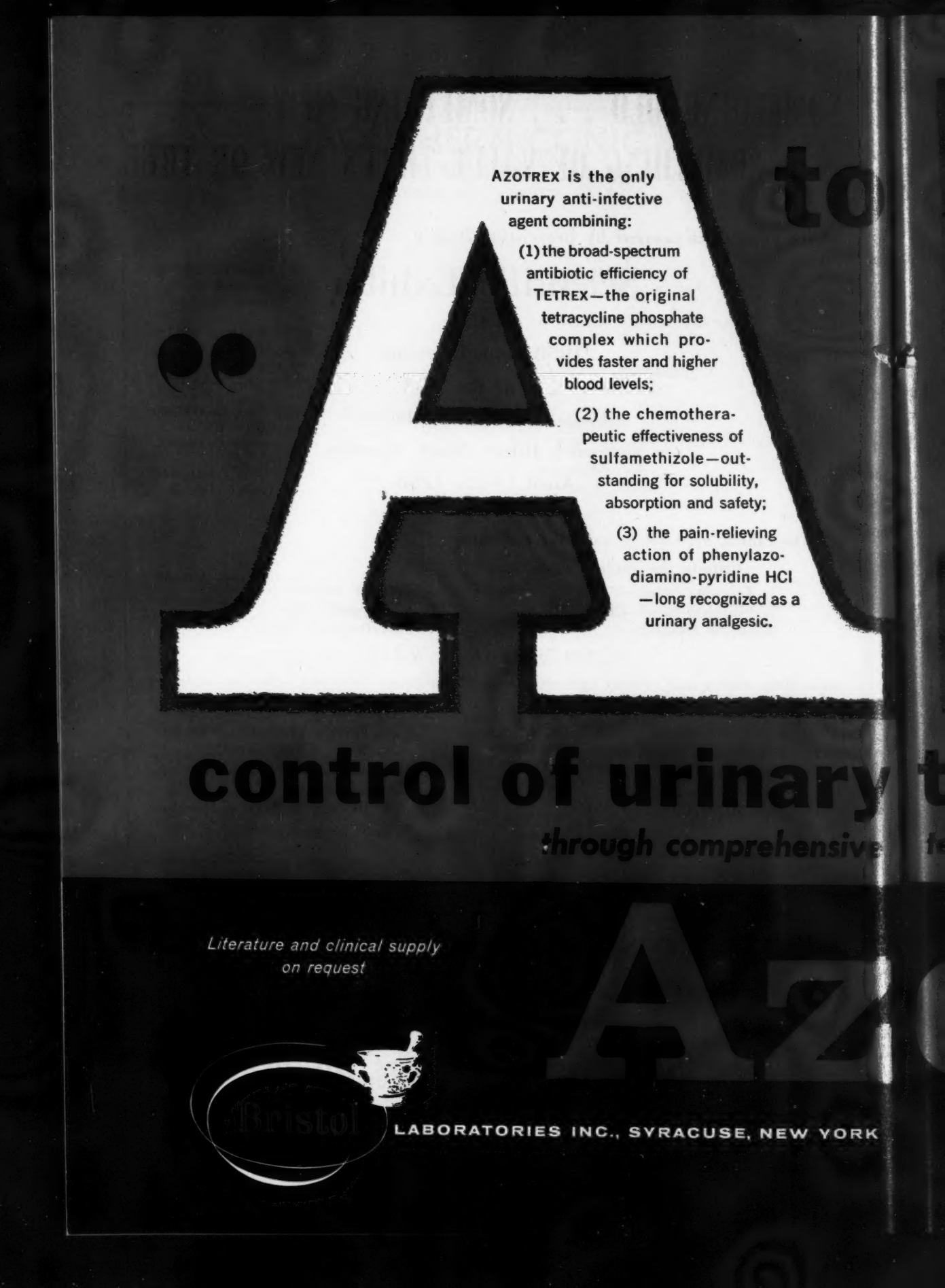
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(2) the chemotherapeutic effectiveness of sulfamethizole—outstanding for solubility, absorption and safety;
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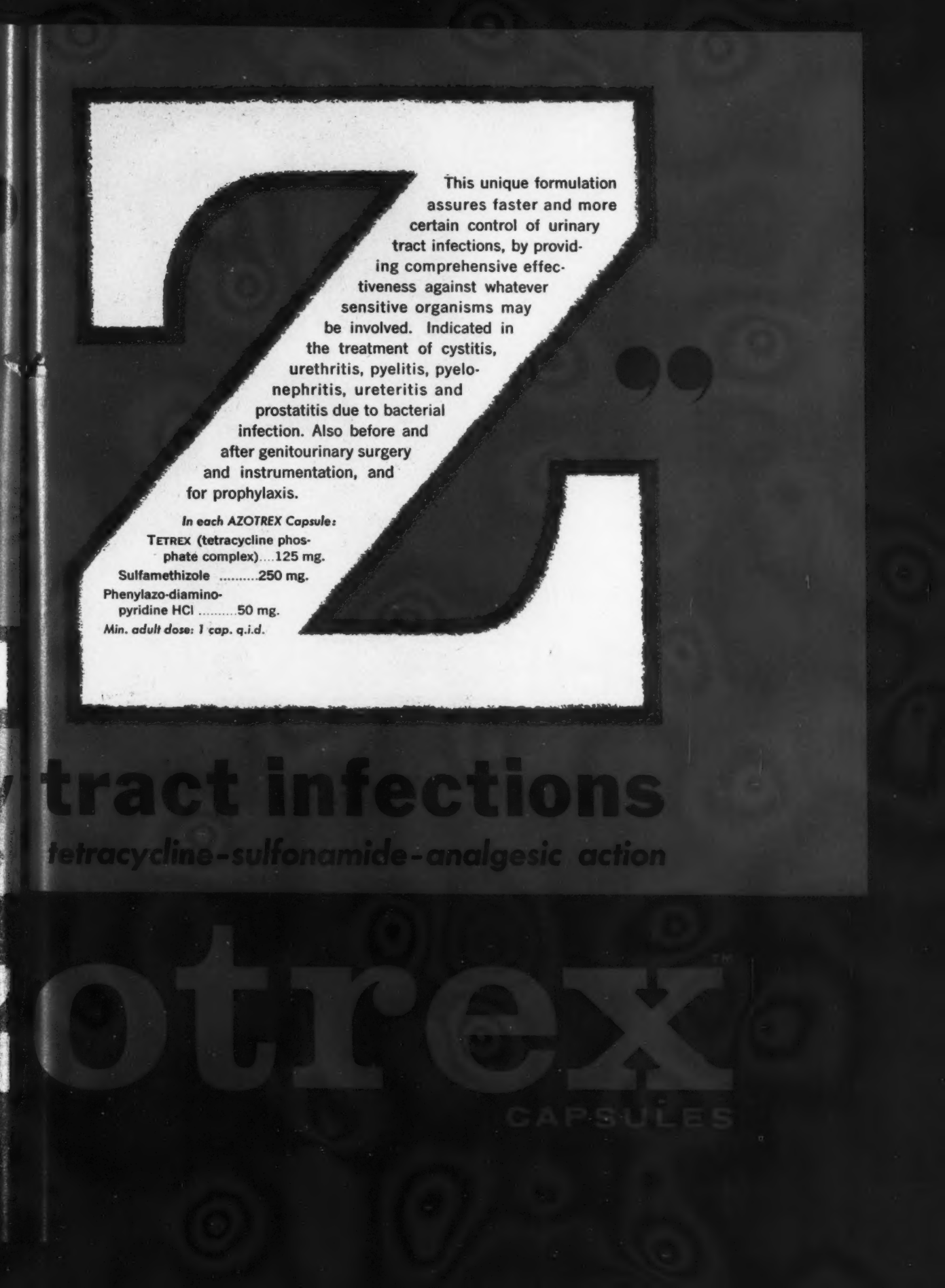
This unique formulation assures faster and more certain control of urinary tract infections, by providing comprehensive effectiveness against whatever sensitive organisms may be involved. Indicated in the treatment of cystitis, urethritis, pyelitis, pyelonephritis, ureteritis and prostatitis due to bacterial infection. Also before and after genitourinary surgery and instrumentation, and for prophylaxis.
In each AZOTREX Capsule:
TETREX (tetracycline phosphate complex)....125 mg.
Sulfamethizole .....250 mg.
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tract infections
tetracycline-sulfonamide-analgesic action
otrex
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ACHROCIDIN is indicated for prompt control of undifferentiated upper respiratory infections in the presence of questionable middle ear, pulmonary, nephritic, or rheumatic signs; during respiratory epidemics; when bacterial complications are observed or expected from the patient's history.

Early potent therapy is provided against such threatening complications as sinusitis, adenitis, otitis, pneumonitis, lung abscess, nephritis, or rheumatic states.

Included in this versatile formula are recommended components for rapid relief of debilitating and annoying cold symptoms.

Adult dosage for ACHROCIDIN Tablets and new, caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

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symptomatic relief... plus!

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TETRACYCLINE-ANTIHISTAMINE-ANALGESIC COMPOUND

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Each tablet contains:

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

Syrup

Each teaspoonful (5 cc.) contains:

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

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with unusual freedom from antispasmodic
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COMBATS MOST CLINICALLY IMPORTANT PATHOGENS

Acquired resistance seldom imposes restrictions on antimicrobial therapy when CHLOROMYCETIN (chloramphenicol, Parke-Davis) is selected to combat gram-negative pathogens involving enteric and adjacent structures of the urinary tract. The acknowledged effectiveness with which CHLOROMYCETIN suppresses highly invasive staphylococci[1-9] extends to persistently pathogenic coliforms.[6,10-15] Experience with mixed groups of Proteus species, for example, "...shows chloramphenicol to be the drug of choice against these bacilli..."[15]

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

REFERENCES:

(1) Petersdorf, R. G.; Bennett, I. L., Jr., & Rose, M. C.: *Bull. Johns Hopkins Hosp.* 100:1, 1957. (2) Yow, E. M.: *GP* 15:102, 1957. (3) Altemeier, W. A., in Welch, H., and Marti-Ibanez, F, ed.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 629. (4) Kempe, C. H.: *California Med.* 84:242, 1956. (5) Spink, W. W.: *Ann. New York Acad. Sc.* 65:175, 1956. (6) Rantz, L. A., & Rantz, H. H.: *Arch. Int. Med.* 97:694, 1956. (7) Wise, R. I.; Cranny, C., & Spink, W. W.: *Am. J. Med.* 20:176, 1956. (8) Smith, R. T.; Platou, E. S., & Good, R. A.: *Pediatrics* 17:549, 1956. (9) Royer, A.: Scientific Exhibit, 89th Ann. Conv. Canad. M. A., Quebec City, Quebec, June 11-15, 1956. (10) Bennett, I. L., Jr.: *West Virginia M. J.* 53:55, 1957. (11) Altemeier, W. A.: *Postgrad. Med.* 20:319, 1956. (12) Felix, N. S.: *Pediat. Clin. North America* 3:317, 1956. (13) Metzger, W. I., & Jenkins, C. J., Jr.: *Pediatrics* 18:929, 1956. (14) Woolington, S. S.; Adler, S. J., & Bower, A. G., in Welch, H., and Marti-Ibanez, F, ed.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 365. (15) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* 99:744, 1957.

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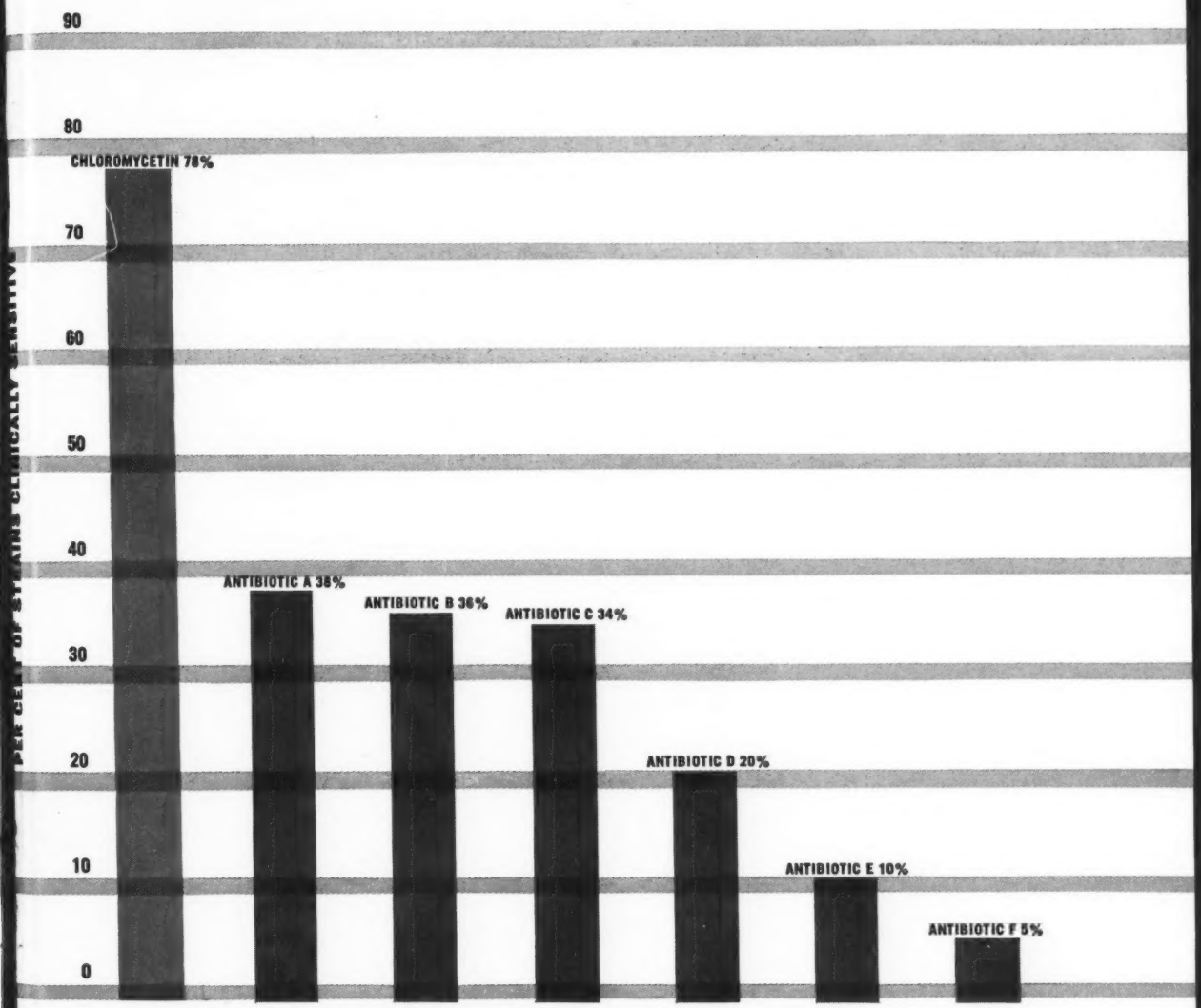
PER CENT OF STRAINS CLINICALLY SENSITIVE

COMPARATIVE SENSITIVITY OF MIXED PROTEUS SPECIES TO CHLOROMYCETIN AND SIX OTHER WIDELY USED ANTIBIOTIC AGENTS*



*This graph is adapted from Waisbren and Strelitzer.[15] It represents *in vitro* data obtained with clinical material isolated between the years 1951 and 1956. Inhibitory concentrations, ranging from 3 to 25 mcg. per ml., were selected on the basis of usual clinical sensitivity.

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